

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Identification

Product name : Sodium Hypochlorite Solution; Commercial Chlor, Commercial Chlor Extra

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Industrial and Commercial Uses  
Uses advised against : Not determined or not applicable  
Reasons advised against : Not determined or not applicable

### 1.3. Details of the supplier of the safety data sheet

Purify  
1707 Townhurst  
Houston, TX 77043  
T 713-463-1929

### 1.4. Emergency telephone number

United States Chemtrec 1-800-424-9300

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### Classification (GHS-US)

Skin Corr. 1A H314  
Eye Dam. 1 H318  
Met. Corr. 1 H290

Full text of H-phrases: see section 16

### 2.2. Label elements

#### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS05

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US)

H314 - Causes severe skin burns and eye damage  
H290 - May be corrosive to metals  
H318 - Causes serious eye damage  
H335 - May cause respiratory irritation  
H401 - Toxic to aquatic life

Precautionary statements (GHS-US)

P234 - Keep only in original container  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P264 - Wash thoroughly after handling  
P271 - Use only outdoors or in a well ventilated area  
P273 - Avoid release to the environment  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.  
P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician  
P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician  
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes.

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Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

- P310 - Immediately call a poison center/doctor
- P321 - Specific treatment (see supplemental first aid instructions on this label)
- P363 - Wash contaminated clothing before reuse
- P390 - Absorb spillage to prevent material damage
- P403+P233 Store in a well ventilated place. Keep container tightly closed
- P405 - Store locked up
- P406 - Store in corrosive resistant stainless steel container with a resistant inner liner
- P501 - Dispose of contents and container as instructed in Section 13

#### 2.3. Other hazards

Hazards not otherwise classified: None

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

CAS number: 7681-52-9

CAS number: 1210-73-2

#### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Sodium hypochlorite	(CAS No) 7681-52-9	9 - 13	Not classified
Sodium hydroxide	(CAS No) 1310-73-2	<= 1.5	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318

Full text of H-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : Loosen clothing as necessary and position individual in a comfortable position Maintain an unobstructed airway Get medical advice/attention if you feel unwell Take precautions to ensure your own safety Remove source of exposure or move person to fresh air and keep comfortable for breathing Immediately call a POISON CONTROL CENTER or seek medical attention If breathing has stopped, trained personnel should begin rescue breathing Avoid mouth-to-mouth contact by using a barrier device If the heart has stopped, immediately start cardiopulmonary resuscitation.
- First-aid measures after skin contact : Rinse affected area with soap and water If symptoms develop or persist, seek medical attention Avoid direct contact and wear chemical protective clothing, if necessary Immediately take off all contaminated clothing Gently blot or brush away excess product Rinse skin with lukewarm, gently flowing water until medical aid is available Immediately call a POISON CONTROL CENTER or seek medical attention Wash contaminated clothing before re-use or discard
- First-aid measures after eye contact : Rinse/flush exposed eye(s) gently using water for 15-20 minutes. If symptoms develop or persist, seek medical attention Avoid direct contact and wear chemical protective gloves, if necessary Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open Remove contact lenses, if present and easy to do so Continue rinsing until medical aid is available Immediately call a POISON CONTROL CENTER or seek medical attention.
- First-aid measures after ingestion : Rinse mouth thoroughly Seek medical attention if irritation, discomfort, or vomiting persists Immediately call a POISON CONTROL CENTER or seek medical attention Do not induce vomiting and rinse mouth If vomiting occurs naturally, lie on your side, in the recovery position If breathing has stopped, trained personnel should begin rescue breathing Avoid mouth-to-mouth contact by using a barrier device If the heart has stopped, immediately start cardiopulmonary resuscitation (CPR)

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : Inhalation of vapors will irritate breathing passages and may cause breathing difficulty.
- Symptoms/injuries after skin contact : Causes severe burns. May cause permanent damage if not treated properly.
- Symptoms/injuries after eye contact : Causes eye damage. May cause permanent damage if not treated properly.
- Symptoms/injuries after ingestion : Ingestion will cause burning sensation in mouth, throat and stomach. Will cause membrane irritation and pain and inflammation to digestive tract, Could cause vomiting and shock

#### 4.3. Indication of any immediate medical attention and special treatment needed

- Delayed symptoms and effects: : Not determined or not applicable

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Specific Treatment: : Not determined or not applicable  
Notes for the Doctor: : Not determined or not applicable

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

Suitable extinguishing media : Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition  
Unsuitable extinguishing media : Not determined or not applicable.

##### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Thermal decomposition can lead to release of irritating gases and vapors May form corrosive mixtures with water Special protective equipment for firefighters:  
: May form corrosive mixtures with water.  
Explosion hazard : Not determined or not applicable

##### 5.3. Advice for firefighters

Protection during firefighting : Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

#### SECTION 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

###### 6.1.1. For non-emergency personnel

Ensure adequate ventilation Ensure air handling systems are operational Wear protective eye wear, gloves and clothing

###### 6.1.2. For emergency responders

Ensure adequate ventilation Ensure air handling systems are operational Wear protective eye wear, gloves and clothing

##### 6.2. Environmental precautions

Should not be released into the environment Prevent from reaching drains, sewer or waterway.

##### 6.3. Methods and material for containment and cleaning up

For containment : Stop the flow of material, if this is without risk.  
Methods for cleaning up : Leaking product may be transferred to clean plastic containers. Dilute small spills with water and add sodium sulfite or sodium metabisulfite and flush to sewer. Avoid runoff to ground water, surface water and sanitary sewers For major spills contain the spill and call supplier Place in an approved container and dispose in accordance with local, state and federal regulations.

##### 6.4. Reference to other sections

No additional information available

#### SECTION 7: Handling and storage

##### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with eyes, skin and clothing.  
: Use only with adequate ventilation  
: Avoid breathing mist or vapor  
: Do not eat, drink, smoke or use personal products when handling chemical substances

##### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Use polyethylene, polypropylene, FRP or PVC containers. Store product at- 10C to 30C and away from sunlight or heat. Keep containers closed when not in use and keep out of reach of children.  
: Keep container tightly sealed  
: Protect from freezing and physical damage  
: Store in a cool, well ventilated area  
: Store in corrosive resistant container with resistant inner lining

#### SECTION 8: Exposure controls/personal protection

##### 8.1. Control parameters

Only those substances with limit values have been included below. Occupational Exposure limit values:

Sodium hydroxide (1310-73-2)		
WEEL	hypochlorite 7681-52-9 STEL (15 min.)	2 mg/m3
ACGIH	Sodium hydroxide 1310-73-2 ACGIH TLV C	2.0 mg/m3
United States (OSHA)	Sodium hydroxide 1310-73-2 OSHA PEL TWA	2.0 mg/m3

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NIOSH	Sodium hydroxide 1310-73-2 NIOSH REL	2.0 mg/m3
Sodium hydroxide	1310-73-2 NIOSH IDLH	10.0 mg/m3

#### Biological limit values:

No biological exposure limits noted for the ingredient(s). Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. Biological monitoring may also be appropriate for some substances. Appropriate engineering controls:

Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of work. Wash contaminated clothing before reuse.

#### 8.2. Exposure controls

Hand protection	: Skin and body protection. Select glove material impermeable and resistant to the substance. Wear appropriate clothing to prevent any possibility of skin contact. Respiratory protection
Eye protection	: Safety goggles or glasses, or appropriate eye protection. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above
Skin and body protection	: Wear suitable working clothes.
Respiratory protection	: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Light Yellow / Green
Odor	: Chlorine
Odor threshold	: Not determined or not applicable
pH	: 12.3 - 12.9
Melting point	: Not determined or not applicable
Freezing point	: Not determined or not applicable
Boiling point	: 105 °C (221°F)
Flash point (closed cup)	: Not determined or not applicable
Relative evaporation rate (butyl acetate=1)	: Not determined or not applicable
Flammability (solid, gas)	: Not determined or not applicable
Explosion limits	: Not determined or not applicable
Explosive properties	: Not determined or not applicable
Oxidizing properties	: Not determined or not applicable
Vapor pressure	: 22 mm Hg @ 20°C (68°F)
Vapor Density	: Not determined or not applicable
Specific gravity	: 1.14 – 1.20
Relative density 20 °C (68°C)	: 1.15 Solubilities Miscible with water
Solubility	: Miscible with water.
Partition coefficient ( -octanol/water)	: Not determined or not applicable
Log Pow	: Not determined or not applicable
Auto-ignition temperature	: Not determined or not applicable
Decomposition temperature	: Not determined or not applicable
Viscosity	: Not determined or not applicable
Viscosity, kinematic	: Not determined or not applicable
Viscosity, dynamic	: Not determined or not applicable

### 9.2. Other information

No additional information available

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#### SECTION 10: Stability and reactivity

##### 10.1. Reactivity

Does not react under normal conditions of use and storage

##### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

##### 10.3. Possibility of hazardous reactions

Stable under normal conditions of use and storage.

##### 10.4. Conditions to avoid

Temperature above 40°C, sunlight and metals

##### 10.5. Incompatible materials

Acids, ammonia, urea, metals & oxidizers

##### 10.6. Hazardous decomposition products

Chlorine gas released by contact with acids. Contact with ammonia or urea produces nitrogen gas and chloramines. Oxygen is released on contact with metals.

#### SECTION 11: Toxicological information

##### 11.1. Information on toxicological effects

Acute toxicity	: Based on available data, the classification criteria are not met.
Skin corrosion/irritation	: Causes severe skin burns and eye damage
Serious eye damage/irritation	: Causes serious eye damage
Respiratory or skin sensitization	: Based on available data, the classification criteria are not met. Product data: No data available
Germ cell mutagenicity	: Based on available data, the classification criteria are not met. Product data: No data available
Carcinogenicity	: Not classified
Reproductive toxicity	: Based on available data, the classification criteria are not met. Product data: No data available
Specific target organ toxicity (single exposure)	: May cause respiratory irritation Product data: No data available. Substance data: No data available
Specific target organ toxicity (repeated exposure)	: Based on available data, the classification criteria are not met. Product data: No data available. Substance data: No data available
Aspiration hazard	: Based on available data, the classification criteria are not met. Product data: No data available. Substance data: No data available

#### SECTION 12: Ecological information

##### 12.1. Toxicity

Acute (short-term) toxicity

Assessment: Toxic to aquatic life

Sodium hypochlorite (7681-52-9)	
LC50 Silver Salmon	32 ug/L – 96 h Chronic (long term) toxicity; Species <i>Oncorhynchus kisutch</i>
EC50 Daphnia Magna	1700ug/L – 48 h

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#### Sodium hydroxide (1310-73-2)

LC50 fish 1 : 45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

#### 12.2. Persistence and degradability

No data available

#### 12.3. Bioaccumulative potential

No data available

#### 12.4. Mobility in soil

No data available

#### 12.5. Other adverse effects

Effect on the global warming : Not determined or not applicable

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations : It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1791 Hypochlorite solutions

UN-No.(DOT) : UN1791

Proper Shipping Name (DOT) : Hypochlorite solutions

Transport hazard class(es) (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive



Packing group (DOT) : III - Environmental Hazard Marine Pollutant

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) DOT : Transport in Bulk according to Annex of MARPOL 73/78 and the IBC

Special Provisions (49 CFR 172.102) DOT : None

Packaging Exceptions (49 CFR 173.xxx) : 154

Reportable Quantity (RQ) : 100 pounds (45.4 kg) or 100 gallons (based on 10% active ingredient)

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#### SECTION 15: Regulatory information

##### 15.1. US Federal regulations

###### Sodium hypochlorite (7681-52-9)

Listed Significant New Use Rule (TSCA Section 5)

###### Sodium hydroxide (1310-73-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

##### 15.2. US State regulations

Inventory listing (TSCA):

7681-52-9 Sodium hypochlorite Listed 1310-73-2 Sodium hydroxide: Not determined.

Export notification under TSCA Section 12(b): Not determined. SARA Section 311/312 hazards:

Acute Chronic Fire Pressure Reactive Yes

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals: Not determined. CERCLA:

###### Sodium hypochlorite (7681-52-9)

U.S. - Massachusetts - Right To Know List

U.S. - Minnesota - Hazardous Substance List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

###### Sodium hydroxide (1310-73-2)

U.S. - Massachusetts - Right To Know List

U.S. - Minnesota - Hazardous Substance List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

#### SECTION 16: Other information

Abbreviations and Acronyms: None Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered 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 materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user. NFPA: 3-0-2 HMIS: 3-0-2 Initial preparation date: 10.02.2017

Full text of H-phrases:

Eye Dam. 1	Serious eye damage/eye irritation Category 1
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

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Sodium Hypochlorite	
HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	2
PERSONAL PROTECTION	

Rev: 09/29/2020

End of Safety Data Sheet

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*