



## CST-20

### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** CST-20  
**Common Name:** Sodium Hydroxide  
**SDS Number:** 0153  
**Revision Date:** 5/12/2016  
**Product Use:** Water Treatment Compound  
**Supplier Details:** Alliance Group, Inc. 800-648-7339  
N114 W18621 Clinton Drive  
Germantown, WI 53022

**Contact:** CHEMTEL  
**Phone:** 1-800-255-3924

### 2 HAZARDS IDENTIFICATION

#### Classification of the Substance or Mixture

##### GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Skin corrosion/irritation, 1  
Health, Serious Eye Damage/Eye Irritation, 1  
Environmental, Hazards to the aquatic environment - Acute, 3

#### GHS Label Elements, Including Precautionary Statements

**GHS Signal Word:** DANGER

**GHS Hazard Pictograms:**



#### GHS Hazard Statements:

H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H402 - Harmful to aquatic life

#### GHS Precautionary Statements:

P234 - Keep only in original container.  
P264 - Wash skin thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P315 - Get immediate medical advice/attention.  
P337 - If eye irritation persists: Get medical advice / attention  
P353 - Rinse skin with water/shower.  
P363 - Wash contaminated clothing before reuse.  
P501 - Dispose of contents/container to an approved waste disposal plant.

#### Hazards not Otherwise Classified (HNOC) or not Covered by GHS

**Route of Entry:** Eyes; Inhalation; Ingestion; Skin.  
**Target Organs:** Respiratory system; Eyes; Skin.  
**Inhalation:** Can cause severe irritation and inflammation of the respiratory tract.

**Skin Contact:** May cause irritation, tearing and redness.  
**Eye Contact:** May cause irritation. May cause permanent eye damage.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients:**

Substance/Mixture: Mixture

Cas#	%	Chemical Name
7632-00-0	<20%	Sodium nitrite
1330-43-4	<15%	Sodium Tetraborate
1310-73-2	<5%	Sodium hydroxide

### 4 FIRST AID MEASURES

**Inhalation:** If symptoms develop, move victim to fresh air. Give oxygen or artificial respiration if needed. GET IMMEDIATE MEDICAL ATTENTION.

**Skin Contact:** Promptly flush skin with water for 15 minutes. Remove contaminated clothing immediately. Get immediate medical attention. Do not reuse clothing and shoes until cleaned. Discard leather articles such as shoes and belt. Do not apply oils and ointments unless ordered by a physician.

**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Get immediate medical attention.

**Ingestion:** Drink large quantities of water. Do NOT induce vomiting. Seek immediate medical attention. If unconscious, take to a hospital or physician. Never induce vomiting or give anything by mouth to an unconscious victim. For spontaneous vomiting, keep head below hips.

### 5 FIRE FIGHTING MEASURES

**Flammability:** Not flammable or combustible.  
**Flash Point:** No data available.  
**Flash Point Method:** No data available.  
**Burning Rate:** No data available  
**Autoignition Temp:** No data available  
**LEL:** No data available  
**UEL:** No data available

**Fire Fighting Methods**

Evacuate area of unprotected personnel. Wear protective clothing including NIOSH Approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire exposed containers and disperse vapors.

**Unusual Fire or Explosion Hazards:**

If evaporated to dryness, residue is an oxidizer and can stimulate or accelerate combustion of organic or other combustible materials. This product may react with certain metals to produce flammable hydrogen gas.

**Extinguishing Media**

**Suitable:** Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

**Unsuitable fire extinguisher:** No data available. Do not use direct water stream

### 6 ACCIDENTAL RELEASE MEASURES

**Personal Precautions**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**Environmental Precautions**

Prevent further leakage or spillage if safe to do so. Do not let products enter drains. Discharge into the environment must be avoided.

**Spill**

Soak up with inert absorbent material and dispose of as hazardous waste. Remaining residue can be neutralized with hydrochloric acid and then disposed of properly. Keep in suitable, closed containers for disposal.

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### HANDLING AND STORAGE

**Handling Precautions:** CORROSIVE. Avoid contact with eyes, skin, or clothing. Avoid breathing vapors or mist. Wash thoroughly after handling. Do not puncture or drop containers. Do not expose containers to open flame, excessive heat, or direct sunlight.

**Storage Requirements:** Store in cool/dry area. Keep away from sunlight, heat, sparks, and flames. Keep away from incompatible materials. Keep container tightly closed. Do not store in unlabeled or mislabeled containers. Do not freeze.

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### EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Provide local exhaust ventilation. Maintain adequate ventilation. Do not use in confined spaces.

**Personal Protective Equipment:** Hygiene Measures  
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.  
Respiratory  
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.  
Eyes and Face  
Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid or airborne material.  
Skin  
Prevent contact with this product. Wear gloves and protective clothing depending on conditions of use.  
Protective gloves: gauntlet-type, neoprene, nitrile.

<b>Component</b>	<b>OSHA PEL</b>	<b>ACGIH TWA/ TLV</b>
Sodium Tetraborate	10 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Sodium Nitrite	No data available	No data available
Sodium Hydroxide	No data available	2 mg/m <sup>3</sup>

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### PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear, light yellow	<b>Odor:</b>	Odorless
<b>Physical State:</b>	Liquid	<b>Molecular Formula:</b>	No data available.
<b>Odor Threshold:</b>	No data available.	<b>Solubility:</b>	Complete
<b>Particle Size:</b>	No data available.	<b>Softening Point:</b>	No data available.
<b>Spec Grav./Density:</b>	1.25	<b>Percent Volatile:</b>	No data available.
<b>Viscosity:</b>	No data available.	<b>Heat Value:</b>	No data available
<b>Sat. Vap. Conc.:</b>	No data available.	<b>Freezing/Melting Pt.:</b>	32°F
<b>Boiling Point:</b>	No data available	<b>Flash Point:</b>	No data available.
<b>Flammability:</b>	No data available.	<b>Octanol:</b>	No data available.
<b>Partition Coefficient:</b>	No data available.	<b>Vapor Density:</b>	No data available.
<b>Vapor Pressure:</b>	No data available.	<b>VOC:</b>	No data available
<b>pH:</b>	>12	<b>Bulk Density:</b>	No data available
<b>Evap. Rate:</b>	No data available	<b>Auto-Ignition Temp:</b>	No data available.
<b>Molecular weight:</b>	No data available.	<b>UFL/LFL:</b>	No data available.
<b>Decomp Temp:</b>	No data available.		

Lower Explosion Limits: No data available.  
Upper Explosion Limits: No data available.

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### STABILITY AND REACTIVITY

**Reactivity:** No data available.

**Chemical Stability:** Product is stable under normal conditions.

<b>Conditions to Avoid:</b>	Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames. Dried residue increases the probability of oxidizing reactions.
<b>Materials to Avoid:</b>	Strong reducing agents, acids, strong oxidizing agents, organic materials, combustible materials, halogenated compounds
<b>Hazardous Decomposition:</b>	Thermal decomposition may release: carbon monoxide, carbon dioxide, and oxides of nitrogen.
<b>Hazardous Polymerization:</b>	Will not occur under normal conditions.

<b>11</b>	<b>TOXICOLOGICAL INFORMATION</b>
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**Toxicity Data:**

**Eye Effects:** Corrosive- Causes severe eye irritation and burns. May cause: blurred vision, redness, pain, conjunctivitis, ulcerations, tissue destruction, permanent eye damage, blindness.

**Skin Effects:** Corrosive- Causes severe irritation and burns. Concentrated solutions may cause: severe burns, severe necrosis, permanent skin damage. Prolonged and repeated exposure to dilute solutions may cause irritation, redness, pain and drying and cracking of the skin.

**Inhalation Effects:** Corrosive- Cause severe irritation and burns. Vapors and mists may damage: mucous membranes, respiratory tract. Vapors or mists may cause: coughing, sore throat, shortness of breath, labored breathing, choking, bronchospasms, chemical pneumonitis, pulmonary edema, death. Effects may be delayed. Chronic exposure may cause: dental erosions, discoloration of teeth, bronchitis, and bronchial emphysema.

**Ingestion Effects:** Corrosive- Causes severe irritation and burns. May cause damage to the: mouth, throat, esophagus, stomach, gastrointestinal tract. May cause: pain, vomiting, diarrhea, bleeding, labored breathing, burns or perforation of the gastrointestinal tract leading to ulceration and secondary infection, and death. Effects may be delayed. Aspiration into the lungs may cause chemical pneumonia and lung damage.

**Chronic Effects:** No data available.

**Mutagenicity:** No data available.

**Teratogenicity:** No data available.

**Fertility Effects:**

(Sodium Tetraborate) Reproductive Toxicity: suspected of damaging fertility

**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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

<b>Component</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
Sodium Tetraborate	Rat: 3200 mg/kg	Rabbit: >2000 mg/kg	No Data available
Sodium Nitrite	Rat: 157.9 mg/kg	No Data available	No Data available
Sodium Hydroxide	Mouse:40 mg/kg	Rabbit: 1350mg/kg	No Data available

**Acute Toxicity Estimate (ATE):**

Inhalation Vapor: No data available

Inhalation Dust/Mist: No data available

<b>12</b>	<b>ECOLOGICAL INFORMATION</b>
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Biodegradability No data available

\*Sodium nitrite (7632-00-0) [<5%]

Toxicity to fish flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 0.94 - 1.92 mg/l - 96.0 h

mortality NOEC - Oncorhynchus mykiss (rainbow trout) - 0.54 mg/l - 96.0 h

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - mg/l - 48 h.

\*Borates, tetra, sodium salts (anhydrous) (1330-43-4) [<5%]

Toxicity to fish LC50 - other fish - 74 mg/l - 96 h.

\*Sodium hydroxide (1310-73-2) [<25%]

Toxicity to fish LC50 - Gambusia affinis (Mosquito fish) - 125 mg/l - 96 h.

LC50 - Oncorhynchus mykiss (rainbow trout) - 45.4 mg/l - 96 h

Toxicity to daphnia and Immobilization EC50 - Daphnia - 40.38 mg/l - 48 h.

**13 DISPOSAL CONSIDERATIONS**

Dispose of in accordance with local, state, and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. DO NOT pressurize, cut, weld, solder, drill, grind, or expose empty containers to heat, flame, sparks or other sources of ignition.

**14 TRANSPORT INFORMATION**

UN3266, Corrosive liquid, basic, inorganic, n.o.s., 8, PGII, (Sodium Hydroxide, Sodium Nitrite)

DOT Proper Shipping Name: Corrosive liquid, basic, inorganic, nos

DOT Technical Name: Sodium Hydroxide, Sodium Nitrite

DOT Hazard Class: 8

DOT UN/NA Number: UN3266

Packing Group: II

Resp. Guide Page:60

Reportable Quantity (RQ): No data available.

**15 REGULATORY INFORMATION**

**FEDERAL REGULATIONS**

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category:

Immediate(Acute) Health Hazard: YES

Delayed (Chronic) Health Hazard: YES

Fire Hazard: NO

Sudden Release of Pressure Hazard: NO

Reactive Hazard: YES

SARA Section 302/304/313/HAP:

Component	CERCLA RQ (LBS)	SARA RQ(LBS)	SARA TPQ(LBS)	SARA SEC 313	US EPA HAP
Sodium Hydroxide	1000	No data available.	No data available.	NO	NO
Sodium Nitrite	100	No data available.	No data available.	YES	NO
Sodium Tetraborate	No data available.	No data available.	No data available.	NO	NO

**STATE REGULATIONS**

**California-** The following components are listed under Prop 65: None.

**Wisconsin-** The following components are listed as a Wisconsin HAP: Sodium Hydroxide. Borates

**16 OTHER INFORMATION**

HMIS III: Health = 3(Chronic), Fire = 0, Physical Hazard = 1

HMIS	
HEALTH <input checked="" type="checkbox"/>	3
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION <input type="checkbox"/>	

**Publication Date:** 5/12/2016

**Prepared By:** V Hartmann

**Reason for Revision:** Update to Sec 2

This information is given in good faith and based on our current knowledge of the product.

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