

# Safety Data Sheet: CHEM-AQUA 51720

Supersedes Date 07/10/2009

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## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** CHEM-AQUA 51720  
**Recommended use** Water treatment chemical  
**Information on Manufacturer**  
CHEM-AQUA, INC  
BOX 152170  
IRVING, TEXAS 75015

**Product Code** 80TZ  
**Chemical nature** Aqueous solution Alkaline  
**Emergency Telephone Number**  
CHEMTREC® 800-424-9300  
**Telephone inquiry**  
972-579-2477

## 2. HAZARD IDENTIFICATION

**Color** Light yellow

**Physical State** Liquid

**Odor** Odorless

### GHS

#### Classification

##### Physical Hazards

Oxidizing liquids  
Substances/mixtures corrosive to metal

Category 3  
Category 1

##### Health Hazard

Acute Oral Toxicity  
Skin Corrosion/Irritation  
Serious Eye Damage/Eye Irritation  
Reproductive Toxicity  
Specific target organ systemic toxicity (single exposure)

Category 3  
Category 1  
Category 1  
Category 1B  
Category 2

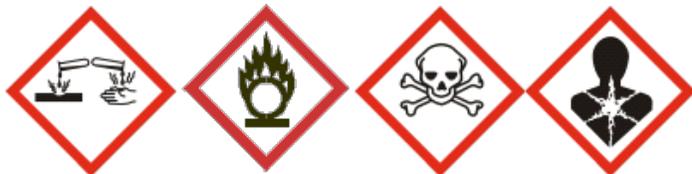
##### Other hazards

None

### Labeling

#### Signal Word

**DANGER**



#### Hazard Statements

H314 - Causes severe skin burns and eye damage  
H301 - Toxic if swallowed  
H371 - May cause damage to organs  
H360 - May damage fertility or the unborn child  
H272 - May intensify fire; oxidizer  
H290 - May be corrosive to metals

#### Precautionary Statements

P202 - Do not handle until all safety precautions have been read and understood  
P280 - Wear protective gloves, protective clothing, eye protection and face protection.  
P270 - Do not eat, drink or smoke when using this product  
P260 - Do not breathe mist  
P264 - Wash face, hands and any exposed skin thoroughly after handling.  
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
P332 + P313 - If skin irritation occurs, get medical attention.  
P363 - Wash contaminated clothing before reuse  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a physician  
P304 + P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.  
P342 + P311 - If experiencing respiratory symptoms, call a physician  
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a physician if unwell.  
P406 - Store in a corrosion resistant container.  
P390 - Absorb spillage to prevent damage  
P220 - Keep from contact with clothing and other combustible materials  
P221 - Take any precaution to avoid mixing with combustibles  
P501 - Dispose of contents and container in accordance with applicable regulations.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Sodium nitrite	7632-00-0	30-60
Sodium tetraborate	1330-43-4	1-5
Sodium hydroxide	1310-73-2	0.1-1

#### 4. FIRST AID MEASURES

<b>General advice</b>	Do not get in eyes, on skin or on clothing. Do not breathe mist.
<b>Eye Contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.
<b>Skin Contact</b>	Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.
<b>Inhalation</b>	Move to fresh air. In case of shortness of breath, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
<b>Ingestion</b>	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person. Rinse mouth.
<b>Notes to physician</b>	The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed. Since reversion of methemoglobin to hemoglobin occurs spontaneously after termination of exposure, moderate degrees of cyanosis need to be treated only by supportive measures.

#### 5. FIRE-FIGHTING MEASURES

<b>Flash Point</b>	Does not flash	<b>Method</b>	Not applicable
<b>Flammability Limits in Air % Hydrogen, by reaction with metals.</b>		<b>Upper 75</b>	<b>Lower 4</b>
<b>Suitable Extinguishing Media</b>	Foam. Alcohol-resistant foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.		
<b>Specific hazards arising from the chemical</b>	Material can create slippery conditions. Contact with metals liberates flammable hydrogen gas.		
<b>Protective Equipment and Precautions for Firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.		
<b>NFPA</b>	<b>Health 3</b>	<b>Flammability 0</b>	<b>Instability 1</b>
<b>HMIS</b>	<b>Health 3</b>	<b>Flammability 0</b>	<b>Instability 1</b>

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use personal protective equipment. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.
<b>Environmental Precautions</b>	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.
<b>Methods for Containment</b>	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
<b>Methods for Cleaning Up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust)
<b>Neutralizing Agent</b>	Acetic acid, diluted.

#### 7. HANDLING AND STORAGE

<b>Handling</b>	Do not get in eyes, on skin or on clothing. Do not breathe mist. Wear personal protective equipment.			
<b>Storage</b>	Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Metal containers must be lined. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.			
<b>Storage Temperature</b>	<b>Minimum</b>	35 °F / 2 °C	<b>Maximum</b>	120 °F / 49 °C
<b>Storage Conditions</b>	<b>Indoor</b>	X	<b>Outdoor</b>	<b>Heated</b> <b>Refrigerated</b>

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

##### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Sodium nitrite	No data available	No data available	No data available
Sodium tetraborate	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	No data available	TWA: 1 mg/m <sup>3</sup>
Sodium hydroxide	Ceiling: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	IDLH: 10 mg/m <sup>3</sup> Ceiling: 2 mg/m <sup>3</sup>

<b>Engineering Measures</b>	Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Ensure adequate ventilation, especially in confined areas.
<b>Personal Protective Equipment</b>	
<b>Eye/Face Protection</b>	Tightly fitting safety goggles. Face-shield.
<b>Skin Protection</b>	Wear suitable protective clothing, Impervious gloves.
<b>Respiratory Protection</b>	In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
<b>General Hygiene Considerations</b>	Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid	<b>Viscosity</b>	Non viscous
<b>Color</b>	Light yellow	<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Not applicable	<b>Appearance</b>	Transparent - Hazy
<b>pH</b>	13.5	<b>Specific Gravity</b>	1.3
<b>Evaporation Rate</b>	0.37 (Butyl acetate=1)	<b>Percent Volatile (Volume)</b>	76.1
<b>VOC Content (%)</b>	0	<b>VOC Content (g/L)</b>	0
<b>Vapor Pressure</b>	11.5 mmHg @ 70°F	<b>Vapor Density</b>	0.6 (Air = 1.0)
<b>Solubility</b>	Completely soluble	<b>n-Octanol/Water Partition</b>	No data available
<b>Melting Point/Range</b>	No data available	<b>Decomposition Temperature</b>	No data available
<b>Boiling Point/Range</b>	225 °F / 107 °C	<b>Flammability (solid, gas)</b>	No data available
<b>Flash Point</b>	Does not flash	<b>Method</b>	Not applicable
<b>Autoignition Temperature</b>	No information available.		
<b>Flammability Limits in Air %</b>	Hydrogen, by reaction with metals.	<b>Upper 75 Lower 4</b>	

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable. Hazardous polymerization does not occur.
<b>Conditions to Avoid</b>	None known
<b>Incompatible Products</b>	Strong oxidizing agents, Reducing agents, Acids, Strong bases, Amines, Ammonium salts, Cyanides, Aldehydes, Tetrahydrofuran, Halogenated hydrocarbon, Alkali metals, Contact with metals liberates hydrogen gas.
<b>Hazardous Decomposition Products</b>	Carbon oxides, Nitrogen oxides (NOx), Oxides of phosphorus, Phosphorus compounds, Sodium oxides, Hydrogen cyanide, Hydrogen, by reaction with metals.
<b>Possibility of Hazardous Reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Product Information

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):

<b>Oral LD50</b>	No information available
<b>Dermal LD50</b>	No information available
<b>Inhalation LC50</b>	
<b>Gas</b>	No information available
<b>Mist</b>	No information available
<b>Vapor</b>	No information available

<b>Principle Route of Exposure</b>	Skin contact, Eye contact, Inhalation.
<b>Primary Routes of Entry</b>	Ingestion
<b>Acute Effects</b>	
<b>Eyes</b>	Corrosive to the eyes and may cause severe damage including blindness.
<b>Skin</b>	Causes skin burns.
<b>Inhalation</b>	Harmful by inhalation. Causes burns.
<b>Ingestion</b>	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. May be fatal if swallowed. Blood disorder may occur after ingestion. Components of the product create formation of methemoglobin. Lowered blood pressure.
<b>Chronic Toxicity</b>	Inhaled corrosive substances can lead to a toxic edema of the lungs. Repeated or prolonged exposure may cause central nervous system damage. Liver and kidney injuries may occur. May cause disorder and damage to the spleen. Contains a known or suspected reproductive toxin.
<b>Target Organ Effects</b>	Respiratory system, Liver, Kidney, Spleen, Heart, Eyes, Skin, Central nervous system, Blood, Reproductive System.
<b>Aggravated Medical Conditions</b>	Skin disorders, Respiratory disorders, Blood disorders, Heart disease, Liver disorders, Kidney disorders, Neurological disorders.

Component Information  
**Acute Toxicity**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Sodium nitrite	= 85 mg/kg ( Rat )	no data available	= 5.5 mg/L ( Rat ) 4 h	no data available	no data available
Sodium tetraborate	= 2403 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	no data available	no data available	no data available
Sodium hydroxide	no data available	= 1350 mg/kg ( Rabbit )	no data available	no data available	no data available

**Chronic Toxicity**

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Sodium nitrite	no data available	no data available	no data available	no data available	liver, kidneys, nervous system, spleen, blood, heart
Sodium tetraborate	no data available	no data available	no data available	X	eyes, respiratory system, skin, testes
Sodium hydroxide	no data available	no data available	no data available	no data available	eyes, respiratory system, skin

**Carcinogenicity**

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

Component	ACGIH	IARC	NTP	OSHA	Other
Sodium nitrite	not applicable				
Sodium tetraborate	not applicable				
Sodium hydroxide	not applicable				

## 12. ECOLOGICAL INFORMATION

Product Information No information available.

**Component Information**

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow	
Sodium nitrite	no data available	LC50 = 0.19 mg/L Oncorhynchus mykiss 96 h LC50 0.092 - 0.13 mg/L Oncorhynchus mykiss 96 h LC50 0.4 - 0.6 mg/L Oncorhynchus mykiss 96 h LC50 0.65 - 1 mg/L Oncorhynchus mykiss 96 h LC50 = 2.3 mg/L Pimephales promelas 96 h LC50 = 20 mg/L Pimephales promelas 96 h	no data available	no data available	no data available	-3.7
Sodium tetraborate	EC50 = 158 mg/L Desmodesmus subspicatus 96 h EC50 2.6 - 21.8 mg/L Pseudokirchneriella subcapitata 96 h	LC50 = 340 mg/L Limanda limanda 96 h	no data available	LC50 1085 - 1402 mg/L 48 h	N/A	
Sodium hydroxide	no data available	LC50 = 45.4 mg/L Oncorhynchus mykiss 96 h	no data available	no data available	N/A	

**Persistence and Degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

## 13. DISPOSAL CONSIDERATIONS

**Product Disposal**

Dispose of in accordance with local regulations.

**Container Disposal**

Empty containers should be taken for local recycling, recovery, or waste disposal.

## 14. TRANSPORT INFORMATION

**DOT**

<b>Proper Shipping Name</b>	Corrosive liquids, n.o.s.
<b>Hazard Class</b>	8
<b>UN-No</b>	UN1760
<b>Packing Group</b>	II
<b>Reportable Quantity (RQ)</b>	Sodium nitrite, RQ kg = 122.70
<b>Description</b>	UN1760, Corrosive liquids, n.o.s. (Sodium Hydroxide, Sodium nitrite), 8, PG II

**TDG**

<b>Hazard Class</b>	8
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UN-No UN1760  
Packing Group II

## ICAO

UN-No UN1760  
Proper Shipping Name Corrosive liquids, n.o.s.  
Hazard Class 8  
Packing Group II  
Shipping Description UN1760, Corrosive liquids, n.o.s.,(Sodium Hydroxide, Sodium Nitrite),8, PG II

## IATA

UN-No UN1760  
Proper Shipping Name Corrosive liquids, n.o.s.  
Hazard Class 8  
Packing Group II  
Shipping Description UN1760, Corrosive liquids, n.o.s.,(Sodium Hydroxide, Sodium Nitrite),8, PG II

## IMDG/IMO

Proper Shipping Name Corrosive liquids, n.o.s.  
Hazard Class 8  
UN-No UN1760  
Packing Group II  
EmS No. F-A, S-B  
Shipping Description UN1760, Corrosive liquids, n.o.s.,(Sodium Hydroxide, Sodium Nitrite),8,PG II

## 15. REGULATORY INFORMATION

## Inventories

TSCA Complies  
DSL Complies

## U.S. Federal Regulations

## SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Sodium nitrite	7632-00-0	30-60	1.0

## SARA 311/312 Hazardous Categorization

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

## CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Sodium nitrite	100 lb	Not applicable
Sodium tetraborate	Not applicable	Not applicable
Sodium hydroxide	1000 lb	Not applicable

## 16. OTHER INFORMATION

Prepared By Patricia Sosa  
Supersedes Date 07/10/2009  
Issuing Date 07/22/2013  
Reason for Revision No information available.  
Glossary No information available.  
List of References. No information available.

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