

Safety Data Sheet: CHEM-AQUA 51720

Supersedes Date: 08/19/2019

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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
CHEMTREC® 800-424-9300
Telephone inquiry
972-579-2477

2. HAZARD IDENTIFICATION

Color Pale yellow

Physical state Liquid

Odor Odorless

GHS Classification

Physical Hazards

Corrosive to Metals

Category 1

Health Hazard

Acute Oral Toxicity

Category 3

Skin Corrosion/Irritation

Category 1

Serious Eye Damage/Eye Irritation

Category 1

Reproductive Toxicity

Category 2

Other hazards

None

Labeling

Signal Word

DANGER



Hazard statements

H301 - Toxic if swallowed

H314 - Causes severe skin burns and eye damage

H361 - Suspected of damaging fertility or the unborn child

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.

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P260 - Do not breathe mist

P270 - Do not eat, drink or smoke when using this product

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 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.

P308 + P313 - IF exposed or concerned, get medical attention

P390 - Absorb spillage to prevent damage.

P406 - Store in a corrosion-resistant container.

P501 - Dispose of contents and container in accordance with applicable regulations

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Sodium nitrite	7632-00-0	30-60

Sodium tetraborate	1330-43-4	0.1-1.0
Sodium hydroxide	1310-73-2	0.1-1.0

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

General advice	Do not get in eyes, on skin or on clothing. Do not breathe mist.
Eye Contact	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.
Skin Contact	Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.
Inhalation	Move to fresh air. In case of shortness of breath, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
Ingestion	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.
Notes to physician	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

Flash Point	Does not flash	Method	No data available
Flammability Limits in Air %:	Hydrogen, by reaction with metals.	Upper:	75
		Lower:	4
Suitable Extinguishing Media	Alcohol-resistant foam. Carbon dioxide (CO ₂). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.		
Specific hazards arising from the chemical	Material can create slippery conditions. Contact with metals liberates flammable hydrogen gas.		
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, NOHSC (approved or equivalent) and full protective gear.		
NFPA	Health 3	Flammability 0	Instability 0
HMIS -	Health 3	Flammability 0	Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.
Environmental precautions	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.
Methods for Containment	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).
Methods for Cleaning Up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Neutralizing Agent	Acetic acid, diluted.

7. HANDLING AND STORAGE

Handling	Do not get in eyes, on skin or on clothing. Do not breathe mist.			
Storage	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.			
Storage Temperature	Minimum	35 °F / 2 °C	Maximum	120 °F / 49 °C
Storage Conditions	Indoor	X	Outdoor	Heated Refrigerated

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Sodium tetraborate	TWA: 2 mg/m ³ inhalable particulate matter STEL: 6 mg/m ³	No data available	TWA: 1 mg/m ³
Sodium hydroxide	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³	10 mg/m ³ Ceiling: 2 mg/m ³

Engineering Measures 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.

Personal Protective Equipment**Eye/Face Protection**

Tightly fitting safety goggles. Face-shield.

Skin Protection

Wear suitable protective clothing, Impervious gloves.

Respiratory Protection

In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations

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

Physical state	Liquid	Viscosity	Non viscous
Color	Pale yellow	Odor	Odorless
Odor Threshold	Not applicable	Appearance	No information available.
pH	13.29	Specific Gravity	1.315
Evaporation Rate	0.37 (Butyl acetate=1)	Percent Volatile (Volume)	No information available
VOC Content (%)	0	VOC Content (g/L)	0
Vapor pressure	No data available	Vapor Density	No information available
Solubility	Completely soluble	n-Octanol/Water Partition	No data available
Melting Point/Range	No data available	Decomposition Temperature	No data available
Boiling Point/Range	225 °F / 107 °C	Flammability (solid, gas)	No data available
Flash Point	Does not flash	Method	No data available
Autoignition Temperature	No information available.		
Flammability Limits in Air %:	Hydrogen, by reaction with metals	Upper: 75 Lower: 4	

10. STABILITY AND REACTIVITY

Chemical Stability	Stable. Hazardous polymerization does not occur.
Conditions to Avoid	Extremes of temperature and direct sunlight.
Incompatible Products	Strong oxidizing agents, Reducing agents, Acids, Strong bases, Amines, Ammonium salts, Cyanides, Aldehydes, Halogenated hydrocarbon, Alkali metals, Contact with metals liberates hydrogen gas.
Decomposition Temperature	No data available
Hazardous Decomposition Products	Carbon oxides, Nitrogen oxides (NOx), Oxides of phosphorus, Phosphorus compounds, Sodium oxides, Hydrogen, by reaction with metals.
Possibility of Hazardous Reactions	None under normal processing.

11. TOXICOLOGICAL INFORMATION

Product Information No information available.

The following values are calculated based on chapter 3.1 of the GHS document

Oral LD50	No information available
Dermal LD50	No information available
Inhalation LC50	
Gas	No information available
Mist	No information available
Vapor	No information available

Principle Route of Exposure Skin contact, Eye contact, Inhalation.**Primary Routes of Entry** Ingestion.**Acute Effects:****Eyes**

Corrosive to the eyes and may cause severe damage including blindness.

Skin

Causes skin burns.

Inhalation

Harmful by inhalation. Causes burns.

Ingestion

If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. Blood disorder may occur after ingestion. Toxic if swallowed. Components of the product create formation of methemoglobin. Lowered blood pressure.

Chronic Toxicity

Inhaled corrosive substances can lead to a toxic edema of the lungs. Contains a known or suspected reproductive toxin.

Target Organ Effects:

Respiratory system, Eyes, Skin.

Aggravated Medical Conditions

Skin disorders, Respiratory disorders.

Component Information

Acute Toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50	Draize Test	Other
Sodium nitrite 7632-00-0	= 85 mg/kg (Rat)	no data available	= 5.5 mg/L (Rat) 4 h	No data available	No data available

Sodium tetraborate 1330-43-4	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2 mg/m ³ (Rat) 4 h	No data available	No data available
Sodium hydroxide 1310-73-2	= 325 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	No data available	No data available	No data available

Chronic Toxicity

Chemical name	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Sodium tetraborate 1330-43-4	No data available	No data available	No data available	X	Skin; Eyes; Respiratory system
Sodium hydroxide 1310-73-2	No data available	No data available	No data available	No data available	Skin; Eyes; Respiratory system

Carcinogenicity

There are no known carcinogenic chemicals in this product.

12. ECOLOGICAL INFORMATION

Product Information No information available.

Additional Ecological Information: Toxicity data will be furnished on request.

Component Information

Chemical name	Toxicity to Algae	Toxicity to Fish	Microtox	Crustacea	Partition coefficient
Sodium nitrite	No information available.	LC50 = 0.19 mg/L Oncorhynchus mykiss 96 h LC50 0.092 - 0.13 mg/L Oncorhynchus mykiss 96 h LC50 = 2.3 mg/L Pimephales promelas 96 h LC50 0.4 - 0.6 mg/L Oncorhynchus mykiss 96 h LC50 0.65 - 1 mg/L Oncorhynchus mykiss 96 h LC50 = 20 mg/L Pimephales promelas 96 h	No information available	No information 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 information available	1085 - 1402: 48 h Daphnia magna mg/L LC50	N/A
Sodium hydroxide	No information available.	LC50 = 45.4 mg/L Oncorhynchus mykiss 96 h	No information available	No information 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

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

TDG

Proper shipping name Corrosive liquids, n.o.s.
Hazard Class 8
UN-No UN1760
Packing Group II

Description UN1760, Corrosive Liquids, N.O.S.,(Sodium Hydroxide, Sodium Nitrite),8,PG 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

UN proper shipping name Corrosive liquids, n.o.s.
Hazard Class 8
UN Number UN1760
Packing Group II
EmS No. F-A, S-B
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:

Chemical name	CAS No.	Weight-%	SARA 313 - Threshold Values
Sodium nitrite	7632-00-0	30-60	1.0
Sodium nitrate	7631-99-4	0.1-1.0	1.0

SARA 311/312 Hazardous Categorization

See Section 2

CERCLA

Chemical name	Hazardous Substances RQs	CERCLA EHS RQs
Sodium nitrite	100 lb	Not applicable
Sodium hydroxide	1000 lb	Not applicable

16. OTHER INFORMATION

Prepared By Adrienne McKee
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Reason for Revision No information available.
Glossary No information available.
List of References. No information available.

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