Safety Data Sheet: CHEM-AQUA 100

Supercedes Date 10/20/2010 **Issuing Date** 04/28/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name CHEM-AQUA 100
Recommended use Water treatment chemical
Information on Manufacturer
CHEM-AQUA, INC
BOX 152170
IRVING, TEXAS 75015

Product Code 0042
Chemical nature Aqueous solution of alkali salts
Emergency Telephone Number
CHEMTREC® 800-424-9300
Telephone inquiry
972-579-2477

2. HAZARD IDENTIFICATION

Color Colorless **Physical State** Liquid **Odor** Slightly Ammoniacal

GHS
Classification

Physical Hazards

Substances/mixtures corrosive to metal	Category 1

Health Hazard

Skin Corrosion/Irritation	Category 1
Serious Eye Damage/Eye Irritation	Category 1
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1

Other hazards
None

Labeling
Signal Word
DANGER

Hazard Statements
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H290 - May be corrosive to metals

Precautionary Statements
P280 - Wear protective gloves, protective clothing, eye protection and face protection.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace
P260 - Do not breathe mist
P285 - In case of inadequate ventilation wear respiratory protection
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P333 + P313 - If skin irritation or rash 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.
P390 - Absorb spillage to prevent damage
P406 - Store in a corrosion-resistant container.
P501 - Dispose of contents and container in accordance with applicable regulations.

6 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %

Sodium hexametaphosphate	68915-31-1	5-10
Sodium sulfite	7757-83-7	3-7
Sodium hydroxide	1310-73-2	1-5

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.

Notes to physician The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed. May cause sensitization of susceptible persons.

5. FIRE-FIGHTING MEASURES

Flash Point Does not flash **Method** Not applicable

Flammability Limits in Air % Hydrogen, by reaction with metals. **Upper** 75 **Lower** 4

Suitable Extinguishing Media

Water spray. Foam. Carbon dioxide (CO2). Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical

Contact with metals may evolve flammable hydrogen gas. Material can create slippery conditions.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA **Health** 3 **Flammability** 1 **Instability** 0

HMIS **Health** 3 **Flammability** 1 **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 Do not flush into surface water or sanitary sewer system.

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. Metal containers must be lined. Keep containers tightly closed in a dry, cool and well-ventilated place. 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

Component	ACGIH TLV	OSHA PEL	NIOSH
Sodium hexametaphosphate	No data available	No data available	No data available
Sodium sulfite	No data available	No data available	No data available
Sodium hydroxide	Ceiling: 2 mg/m^3	TWA: 2 mg/m^3	10 mg/m^3 Ceiling: 2 mg/m^3

Engineering Measures Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

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 Wear protective gloves/clothing. 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	Colorless	**Odor**	Slightly Ammoniacal
Odor Threshold	Not applicable	**Appearance**	Transparent
pH	13.6	**Specific Gravity**	1.15
Evaporation Rate	0.51 (Butyl acetate=1)	**Percent Volatile (Volume)**	89.8
VOC Content (%)	0.5	**VOC Content (g/L)**	5.8
Vapor Pressure	14.8 mmHg @ 70°F	**Vapor Density**	0.6 (Air = 1.0)
Solubility	Completely soluble	**n-Octanol/Water Partition**	No data available
Melting Point/Range	No data available	**Decomposition Temperature**	No data available
Boiling Point/Range	220 °F / 104 °C	**Flammability (solid, gas)**	No data available
Flash Point	Does not flash	**Method**	Not applicable
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 None known

Incompatible Products Strong oxidizing agents, Acids, Aldehydes, Halogenated hydrocarbon, Leather, Sulfides, Metals.

Hazardous Decomposition Products Carbon oxides, Sodium oxides, Sulfur oxides, Hydrogen, by reaction with metals, Phosphorus compounds, Oxides of phosphorus.

Possibility of Hazardous Reactions 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):

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 Skin Absorption, Inhalation, Ingestion.

Acute Effects

- **Eyes** Corrosive to the eyes and may cause severe damage including blindness.
- **Skin** Causes skin burns. May cause allergic skin reaction.
- **Inhalation** Harmful by inhalation. Causes burns. May cause allergic respiratory reaction.
- **Ingestion** If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. May produce an allergic reaction.

Chronic Toxicity Inhaled corrosive substances can lead to a toxic edema of the lungs. May cause sensitization by skin contact. May cause sensitization by inhalation.

Target Organ Effects Central nervous system, Skin, Eyes, Respiratory system, Immune system.

Aggravated Medical Conditions Skin disorders, Respiratory disorders, Neurological disorders.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Sodium hexametaphosphate	no data available	no data available	no data available	no data available	no data available
Sodium sulfite	= 820 mg/kg (Rat)	no data available	> 22 mg/L (Rat) 1 h	no data available	no data available
Sodium hydroxide	no data available	= 1350 mg/kg (Rabbit)	no data available	no data available	no data available

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Sodium hexametaphosphate	no data available	no data available	no data available	no data available	no data available
Sodium sulfite	no data available	Skin sensitization, respiratory sensitization	no data available	no data available	Respiratory system, Immune system, CNS
Sodium hydroxide	no data available	no data available	no data available	no data available	eyes, respiratory system, skin

Carcinogenicity There are no known carcinogenic chemicals in this product.

Component	ACGIH	IARC	NTP	OSHA	Other
Sodium hexametaphosphate	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium sulfite	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium hydroxide	not applicable	not applicable	not applicable	not applicable	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 hexametaphosphate	no data available	no data available	no data available	no data available	N/A
Sodium sulfite	no data available	LC50 220 - 460 mg/L Leuciscus idus 96 h	EC50 = 770 mg/L 17 h	330: 24 h Psammechinus miliaris mg/L LC50	-4
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 DOT
- **Proper Shipping Name** Sodium hydroxide solution
- **Hazard Class** 8
- **UN-No** UN1824
- **Packing Group** II
- **Description** UN1824, Sodium hydroxide solution, 8, PG II

TDG TDG
- **Hazard Class** 8
- **UN-No** UN1824
- **Packing Group** II

ICAO ICAO
- **UN-No** UN1824
- **Proper Shipping Name** Sodium hydroxide solution
- **Hazard Class** 8
- **Packing Group** II
- **Shipping Description** UN1824, Sodium hydroxide solution,8,PG II

IATA IATA
- **UN-No** UN1824
- **Proper Shipping Name** Sodium hydroxide solution
- **Hazard Class** 8
- **Packing Group** II
- **ERG Code** 8L
- **Shipping Description** UN1824,Sodium hydroxide solution,8,PG II

IMDG/IMO IMDG/IMO
- **Proper Shipping Name** Sodium hydroxide solution
- **Hazard Class** 8
- **UN-No** UN1824
- **Packing Group** II
- **EmS No.** F-A, S-B
- **Shipping Description** UN1824, Sodium hydroxide solution,8,PG II

15. REGULATORY INFORMATION

Inventories
TSCA Does not Comply

DSL Does not Comply

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

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

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Sodium hexametaphosphate	Not applicable	Not applicable
Sodium sulfite	Not applicable	Not applicable
Sodium hydroxide	1000 lb	Not applicable

16. OTHER INFORMATION

Prepared By Rachael Mohochi
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Reason for Revision No information available.
Glossary No information available.
List of References. No information available.

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