

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 235C
 Chemical Nature Aqueous solution of alkali salts
Emergency Telephone Number
 CHEMTREC® 800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER
 Corrosive
 Causes skin and eye burns
 May cause allergic skin reaction
 May cause allergic respiratory reaction
 May cause delayed lung injury and burns
 Harmful or fatal if swallowed

Color	Colorless	Physical State	Liquid	Odor	Slightly Ammoniacal
Potential Health Effects					
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 of susceptible persons.				
Target Organ Effects	Bone Marrow, Central nervous system, Lungs, Skin, Eyes.				
Aggravated Medical Conditions	Skin disorders, Respiratory disorders, Neurological disorders.				
Potential Environmental Effects	See Section 12 for additional Ecological information.				

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Sodium hexametaphosphate	68915-31-1
Sodium sulfite	7757-83-7
Sodium hydroxide	1310-73-2

4. FIRST-AID MEASURES

General Advice	Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray 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	Not flammable	Method	Not applicable
Autoignition Temperature	No information available.		
Flammability Limits in Air % Hydrogen, by reaction with metals.	Upper 75	Lower 4	
Suitable Extinguishing Media	Water spray. Foam. Alcohol-resistant 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.

<p>Environmental Precautions</p> <p>Methods for Containment</p> <p>Methods for Cleaning Up</p> <p>Neutralizing Agent</p>	<p>Do not flush into surface water or sanitary sewer system.</p> <p>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).</p> <p>Pick up and transfer to properly labeled containers.</p> <p>Acetic acid, diluted. Corrosive hazard. Wear protective gloves/clothing and eye/face protection.</p>
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7. HANDLING AND STORAGE

<p>Handling</p> <p>Storage</p> <p>Storage Temperature</p> <p>Storage Conditions</p>	<p>Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist.</p> <p>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.</p> <p>Minimum 35°F/2°C</p> <p>Maximum 120°F/49°C</p> <p>Indoor X Outdoor Heated Refrigerated</p>
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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	2 mg/m ³ Ceiling	2 mg/m ³ TWA	10 mg/m ³ IDLH : 2 mg/m ³ Ceiling

<p>Engineering Measures</p> <p>Personal Protective Equipment</p> <p>Eye/Face Protection</p> <p>Skin Protection</p> <p>Respiratory Protection</p> <p>General Hygiene Considerations</p>	<p>Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.</p> <p>Tightly fitting safety goggles. Face-shield.</p> <p>Wear suitable protective clothing, Impervious gloves.</p> <p>In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.</p> <p>Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location.</p>
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9. PHYSICAL AND CHEMICAL PROPERTIES

<p>Physical State</p> <p>Color</p> <p>Appearance</p> <p>Specific Gravity</p> <p>Percent Volatile (Volume)</p> <p>VOC Content (g/L)</p> <p>Vapor Density</p> <p>Boiling Point/Range</p>	<p>Liquid</p> <p>Colorless</p> <p>Transparent</p> <p>1.15</p> <p>89.8</p> <p>5.8</p> <p>0.6 (Air = 1.0)</p> <p>220°F/104°C</p>	<p>Viscosity</p> <p>Odor</p> <p>pH</p> <p>Evaporation Rate</p> <p>VOC Content (%)</p> <p>Vapor Pressure</p> <p>Solubility</p>	<p>Slight Viscous</p> <p>Slightly Ammoniacal</p> <p>13.6</p> <p>0.51 (Butyl acetate=1)</p> <p>0.5</p> <p>14.8 mmHg @ 70°F</p> <p>Completely soluble</p>
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10. STABILITY AND REACTIVITY

<p>Chemical Stability</p> <p>Conditions to Avoid</p> <p>Incompatible Products</p> <p>Hazardous Decomposition Products</p> <p>Possibility of Hazardous Reactions</p>	<p>Stable. Hazardous polymerization does not occur.</p> <p>None known.</p> <p>Strong oxidizing agents, Acids, Aldehydes, Halogenated hydrocarbon, Leather, Sulfides, Metals.</p> <p>Carbon oxides, Sodium oxides, Sulfur oxides, Hydrogen, by reaction with metals, Phosphorus compounds, Oxides of phosphorus.</p> <p>None under normal processing.</p>
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11. TOXICOLOGICAL INFORMATION

Product Information No information available.

Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Sodium hexametaphosphate	= 3053 mg/kg (Rat)	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 > 5.5 mg/L (Rat) 4 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

Chronic toxicity

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	Sensitizer	no data available	no data available	Respiratory system, Bone marrow, 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	220 - 480 mg/L Leuciscus idus 96 h	EC50 = 770 mg/L 17 h	= 330 mg/L 24 h	-4 at 25 °C
Sodium hydroxide	no data available	= 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
Proper Shipping Name: Sodium hydroxide solution
Hazard Class: 8
UN-No: UN1824
Packing Group: II
Description: UN1824, Sodium hydroxide solution, 8, PG II

TDG
Proper shipping name: Sodium hydroxide solution
Hazard Class: 8
UN-No: UN1824
Packing Group: II
Description: SODIUM HYDROXIDE SOLUTION,8,UN1824,PG II

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
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
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: 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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40n 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	Not applicable	Not applicable

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

E Corrosive material, D2A Very toxic materials, D2B Toxic materials.



16. OTHER INFORMATION

Prepared By Mike McDowell
Supersedes Date 10/18/2007
Issuing Date 10/20/2010
Reason for Revision No information available.
Glossary No information available.
List of References. No information available.

CHEM-AQUA, INC assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage or disposal of the product. The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.