Material Safety Data Sheet: CHEM-AQUA 42171

Supercedes Date 08/13/2012 **Issuing Date** 12/28/2012

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name CHEM-AQUA 42171
Recommended use Water treatment chemical Biocidal product

Information on Manufacturer
CHEM-AQUA, INC
BOX 152170
IRVING, TEXAS 75015

Product Code TV11
Chemical nature Aqueous solution Alkaline

Emergency Telephone Number
CHEMTREC® 800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview
DANGER
Corrosive
Causes skin and eye burns
May cause delayed lung injury and burns
Harmful or fatal if swallowed

Color Yellow **Physical State** Liquid **Odor** Slight chlorine

Potential Health Effects

Principle Route of Exposure	Skin contact, Eye contact, Inhalation.
Primary Routes of Entry	None known
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	Ingestion causes burns of the upper digestive and respiratory tracts. May be fatal if swallowed.
Chronic Toxicity	Inhaled corrosive substances can lead to a toxic edema of the lungs.
Target Organ Effects	Skin, Respiratory system.
Aggravated Medical Conditions	Skin disorders, Respiratory disorders.
Potential Environmental Effects	See Section 12 for additional Ecological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Sulfamic acid, n-bromo, sodium salt	1004542-84-0
Sodium chloride	7647-14-5
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. Call a physician or poison control center immediately.
Skin Contact	Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. Call a physician or poison control center immediately.
Ingestion	Call a physician or Poison Control Center immediately. Do NOT induce vomiting. 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.

5. FIRE-FIGHTING MEASURES

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
Suitable Extinguishing Media
Water spray. Foam. Alcohol-resistant foam. Carbon dioxide (CO_2). 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** 1
HMIS	**Health** 3	**Flammability** 1	**Instability** 1

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 Pick up and transfer to properly labeled containers
Neutralizing Agent Acetic acid, diluted.

7. HANDLING AND STORAGE

Handling Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist.
Storage Store in original container. Keep away from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Metal containers must be lined. Do not freeze.
Storage Temperature **Minimum** 45 °F / 7 °C **Maximum** 100 °F / 38 °C
Storage Conditions **Indoor** X **Outdoor** **Heated** **Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Sulfamic acid, n-bromo, sodium salt	No data available	No data available	No data available
Sodium chloride	No data available	5 mg/m^3 PNOR (as solid)	No data available
Sodium hydroxide	Ceiling: 2 mg/m^3	TWA: 2 mg/m^3	IDLH: 10 mg/m^3 Ceiling: 2 mg/m^3

Engineering Measures Use with local exhaust ventilation. 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 Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	**Viscosity**	Non viscous
Color	Yellow	**Odor**	Slight chlorine
Appearance	Transparent	**pH**	> 13
Specific Gravity	1.32	**Evaporation Rate**	0.38 (Butyl acetate=1)
Percent Volatile (Volume)	73.5	**VOC Content (%)**	0
VOC Content (g/L)	0	**Vapor Pressure**	11.8 mmHg @ 70°F
Vapor Density	0.6 (Air = 1.0)	**Solubility**	Completely soluble
Boiling Point/Range	No data available		

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, Acids, Metals.
Hazardous Decomposition Products Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides, Sulfur compounds, Sodium oxides, Bromine, Fumes of bromine, Hydrogen bromide.
Possibility of Hazardous Reactions None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information No information available.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Sulfamic acid, n-bromo, sodium salt	no data available	no data available	no data available	no data available	no data available
Sodium chloride	= 3 g/kg (Rat)	> 10 g/kg (Rabbit)	> 42 g/m^3 (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

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Sulfamic acid, n-bromo, sodium salt	no data available	no data available	no data available	no data available	no data available
Sodium chloride	no data available	no data available	no data available	no data available	kidney
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
Sulfamic acid, n-bromo, sodium salt	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium chloride	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
Sulfamic acid, n-bromo, sodium salt	no data available	no data available	no data available	no data available	N/A
Sodium chloride	no data available	LC50 5560 - 6080 mg/L Lepomis macrochirus 96 h LC50 = 12946 mg/L Lepomis macrochirus 96 h LC50 6020 - 7070 mg/L Pimephales promelas 96 h LC50 = 7050 mg/L Pimephales promelas 96 h LC50 6420 - 6700 mg/L Pimephales promelas 96 h LC50 4747 - 7824 mg/L Oncorhynchus mykiss 96 h	no data available	EC50= 1000 mg/L 48 h EC50 340.7 - 469.2 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 Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency.

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

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Corrosive liquid, n.o.s.
Hazard Class 8
UN-No UN1760
Packing Group III
Description UN1760, Corrosive liquid, n.o.s.,(Bromide Salts), 8, PG III

TDG

Proper shipping name UN1760, Corrosive liquid, n.o.s.(Bromide Salts), 8, PG III
Hazard Class 8
UN-No UN1760

Packing Group III
Description UN1760, Corrosive liquid, n.o.s.,(Bromide Salts), 8, PG III

ICAO

UN-No UN1760
Proper Shipping Name Corrosive liquid, n.o.s.
Hazard Class 8
Packing Group III
Shipping Description UN1760, Corrosive liquid, n.o.s.,(Bromide Salts), 8, PG III

IATA

UN-No UN1760
Proper Shipping Name Corrosive liquid, n.o.s.
Hazard Class 8
Packing Group III
ERG Code 8L
Shipping Description UN1760, Corrosive liquid, n.o.s.(Bromide Salts), 8, PG III

IMDG/IMO

Proper Shipping Name Corrosive liquid, n.o.s.
Hazard Class 8
UN-No UN1760
Packing Group III
EmS No. F-A, S-B
Shipping Description UN1760, Corrosive liquid, n.o.s.(Bromide Salts), 8, PG III

15. REGULATORY INFORMATION

Inventories
TSCA Complies
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	No	No	No	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Sulfamic acid, n-bromo, sodium salt	Not applicable	Not applicable
Sodium chloride	Not applicable	Not applicable
Sodium hydroxide	1000 lb	Not applicable

Canada

This product may not be commercially placed on the market in Canada.

WHMIS Hazard Class
Not applicable

16. OTHER INFORMATION

Prepared By Rachael Mohochi
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Issuing Date 12/28/2012
Reason for Revision No information available.
Glossary No information available.
List of References. No information available.

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