Safety Data Sheet: CHEM-AQUA 42100

Supercedes Date 06/22/2011 **Issuing Date** 02/11/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name CHEM-AQUA 42100
Recommended use Biocidal product
Information on Manufacturer
CHEM-AQUA, INC
BOX 152170
IRVING, TEXAS 75015

Product Code 8T2Z
Chemical nature solid
Emergency Telephone Number
CHEMTREC® 800-424-9300
Telephone inquiry
972-579-2477

2. HAZARD IDENTIFICATION

Color White **Physical State** Tablet **Odor** Slight chlorine

GHS
Classification

Physical Hazards

Oxidizing solids	Category 3
Substances/mixtures corrosive to metal	Category 1

Health Hazard

Acute Oral Toxicity	Category 4
Skin Corrosion/Irritation	Category 1
Serious Eye Damage/Eye Irritation	Category 1

Other hazards
None

Labeling
Signal Word
DANGER

Hazard Statements
H272 - May intensify fire; oxidizer
H314 - Causes severe skin burns and eye damage
H302 - Harmful if swallowed
H290 - May be corrosive to metals

Precautionary Statements
P210 - Keep away from heat, sparks, open flames or hot surfaces.
P221 - Take any precaution to avoid mixing with combustibles
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 dust
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 at rest in a position comfortable for breathing.
P312 - Call a physician if unwell.
P301+ P330 + P331 - IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Call a physician if unwell.
P220 - Keep from contact with clothing and other combustible materials
P402 - Store in a dry place
P406 - Store in a corrosion-resistant container.
P501 - Dispose of contents and container in accordance with applicable regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %

1-Bromo-3-chloro-5,5-dimethylhydantoin	16079-88-2	60-100

4. FIRST AID MEASURES

General advice Do not get in eyes, on skin or on clothing. Do not breathe dust.

Eye Contact Hold the eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes of treatment, then continue rinsing the eye. Call a Poison Control Center or a doctor for treatment advice .

Skin Contact Take off all contaminated clothing immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.

Inhalation Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a Poison Control Center or doctor for further treatment advice .

Ingestion Call a physician or poison control center immediately. Give small amounts of water to drink. Do not induce vomiting without medical advice. 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

Flammability Limits in Air % Not applicable. **Upper** No data available **Lower** No data available

Suitable Extinguishing Media

Foam. Alcohol-resistant foam. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapors. Oxidizing potential.

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 **Other** OX

HMIS **Health** 3 **Flammability** 1 **Instability** 1

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so.

Environmental Precautions Do not flush into surface water or sanitary sewer system.

Methods for Containment Pick up and arrange disposal without creating dust.

Methods for Cleaning Up Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.

Neutralizing Agent Neutralize with lime milk or soda and flush with plenty of water.

7. HANDLING AND STORAGE

Handling Wear personal protective equipment. Do not get in eyes, on skin or on clothing. Do not breathe dust. Keep away from clothing and other combustible materials.

Storage Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials.

Storage Temperature **Minimum** 35 °F / 2 °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
1-Bromo-3-chloro-5,5-dimethylhydantoin	No data available	No data available	No data available

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 Respirator must be worn if exposed to dust.

General Hygiene Considerations Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Tablet	**Viscosity**	Solid
Color	White	**Odor**	Slight chlorine
Odor Threshold	Not applicable	**Appearance**	Opaque
pH	3.5 @ 0.15%	**Specific Gravity**	0.96
Evaporation Rate	No information available	**Percent Volatile (Volume)**	0
VOC Content (%)	0	**VOC Content (g/L)**	0
Vapor Pressure	0 mmHg @ 70°F	**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	No information available	**Flammability (solid, gas)**	No data available
Flash Point	Does not flash	**Method**	Not applicable
Autoignition Temperature	No information available.		
Flammability Limits in Air %	Not applicable.	**Upper** No data available **Lower** No data available	

10. STABILITY AND REACTIVITY

Chemical Stability	Stable. Hazardous polymerization does not occur.
Conditions to Avoid	Keep away from open flames, hot surfaces, and sources of ignition, Protect from moisture.
Incompatible Products	Strong oxidizing agents, Strong acids and strong bases, Combustible material, Reducing agents.
Hazardous Decomposition Products	Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas, Hydrogen bromide, Chlorine, Bromine.
Possibility of Hazardous Reactions	Oxidizer. Contact with other material may cause fire

11. TOXICOLOGICAL INFORMATION

Product Information

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

Oral LD50	580
Dermal LD50	>2000
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, Inhalation.
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.
Chronic Toxicity	Inhaled corrosive substances can lead to a toxic edema of the lungs.
Target Organ Effects	None known
Aggravated Medical Conditions	Respiratory disorders, Skin disorders.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
1-Bromo-3-chloro-5,5-dimethylhydantoin	no data available	no data available	no data available	no data available	no data available

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
1-Bromo-3-chloro-5,5-dimethylhydantoin	no data available	no data available	no data available	no data available	no data available

Carcinogenicity There are no known carcinogenic chemicals in this product.

Component	ACGIH	IARC	NTP	OSHA	Other
1-Bromo-3-chloro-5,5-dimethylhydantoin	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information

Toxicity to fish	Daphnia magna (Water flea)
0.87 mg/L 96h	EC50 48h 0.46 mg/L

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
1-Bromo-3-chloro-5,5-dimethylhydantoin	no data available	no data available	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. 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 Oxidizing solid, n.o.s.
Hazard Class 5.1
UN-No UN1479
Packing Group III
Description UN1479, Oxidizing solid, n.o.s., (1-Bromo-3-chloro-5,5-dimethylhydantoin), 5.1, III

TDG
Hazard Class 5.1
UN-No UN1479
Packing Group III

ICAO
UN-No UN1479
Proper Shipping Name Oxidizing solid, n.o.s.
Hazard Class 5.1
Packing Group III
Shipping Description UN1479, Oxidizing solid, n.o.s., (1-Bromo-3-chloro-5,5-dimethylhydantoin), 5.1, III

IATA
UN-No UN1479
Proper Shipping Name Oxidizing solid, n.o.s.
Hazard Class 5.1
Packing Group III
Shipping Description UN1479, Oxidizing solid, n.o.s., (1-Bromo-3-chloro-5,5-dimethylhydantoin), 5.1, III

IMDG/IMO
Proper Shipping Name Oxidizing solid, n.o.s.
Hazard Class 5.1
UN-No UN1479
Packing Group III
Shipping Description UN1479, Oxidizing solid, n.o.s., (1-Bromo-3-chloro-5,5-dimethylhydantoin), 5.1, III

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 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
1-Bromo-3-chloro-5,5-dimethylhydantoin	Not applicable	Not applicable

16. OTHER INFORMATION

Prepared By	Rachael Mohochi
Supercedes Date	06/22/2011
Issuing Date	02/11/2014
Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

CHEM-AQUA, INCassumes 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 document 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.