

SAFETY DATA SHEET
Bromine Tabs Sanitizer

Product Name: Bromine Tabs Sanitizer
Date: 1/29/2016

SECTION 1 IDENTIFICATION

Supplier: Clearon Corp.
95 MacCorkle Avenue
South Charleston, WV 25303
(304) 720-3671

Distributor: AquaFinesse LLC
3226 Taylorsville Highway
Statesville, NC 28625
(513)530-0800

U.S. PERS Emergency Telephone: 1-800-633-8253

Product Name:

Bromine Tabs Sanitizer

Synonyms:

BCDMH; Bromochloro-5,5-dimethylimidazolidine-2,4-dione; 1-Bromo-3-chloro-5,5-dimethyl-2,4-imidazolidinedione; Agribrom; Halobrom; Halogene; Dibromohydantoin; 2,4-Imidazolidinedione

Chemical Name:

Bromochloro-5,5-dimethylhydantoin

Chemical Formula:

C₅H₆BrClN₂O₂

CAS Number:

32718-18-6

Product Use:

Sanitizer for pools and spas.

SECTION 2 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
DANGER



Hazard Statement(s)

- H314: Causes severe skin burns and eye damage
- H335: May cause respiratory irritation
- H302: Harmful if swallowed
- H410: Very toxic to aquatic life with long lasting effects

Precautionary Statement(s)

- P260: Do not breathe dust/fume/gas/mist/vapors/spray
- P264: Wash hands thoroughly after handling
- P270: Do not eat, drink or smoke when using this product
- P273: Avoid release to the environment
- P280: Wear protective gloves/protective clothing/eye protection/face protection
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- P301+P330+P331: IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
- P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove lenses; if present and easy to do so. Continue Rinsing.
- P363: Wash contaminated clothing before reuse
- P310: Immediately call a POISON CENTER or doctor/physician
- P391: Collect spillage
- P405: Store locked up
- P403+P233: Store in a well-ventilated place. Keep container tightly closed
- P501: Dispose of contents/container in accordance with national and international regulations

SECTION 2 **HAZARDS IDENTIFICATION - Continued**

Potential Health Effects

Eye Contact: Corrosive. May cause temporary or permanent eye damage.

Skin Contact: Exposure to wet skin may cause burns. May cause sensitization by skin contact

Inhalation: Irritant to upper respiratory tract. Shortness of breath, headache and nausea.

NFPA Ratings (Scale 0-4): Health = 3, Fire = 0, Reactivity = 1.
Special Hazard Warning: OXIDIZER

HMS Ratings (Scale 0-4): Health = 3, Fire = 0, Reactivity = 1.

SECTION 3 **COMPOSITION / INFORMATION ON INGREDIENTS**

<u>Component</u>	<u>CAS Number</u>	<u>Percent</u>
Bromochloro-5,5-dimethylhydantoin	32718-18-6	98%

SECTION 4 **FIRST-AID MEASURES**

Eye Contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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

Ingestion: Call poison control center, or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Note To Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5 **FIRE FIGHTING MEASURES**

Suitable Extinguishing Media: Dry powder, carbon dioxide or water spray. In case of exothermic decomposition and appearance of smoke, water should be used to suppress it.

Fire Fighting Procedure: Cool containers with water spray. In closed stores, provide fire-fighters with self-contained breathing apparatus in positive pressure mode.

Unusual Fire and Explosion Hazards: Oxidizing agent. Forms explosive mixtures with combustible, organic or other easily oxidizable materials. When heated to decomposition, may release poisonous and corrosive fumes. Dust may form a weak explosive mixture with air (class St1), but is not sensitive to ignition from electrostatic discharges.

SECTION 6	<i>ACCIDENTAL RELEASE MEASURES</i>
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Personal Precautions: Evacuate area. Use dust respirator, rubber gloves and chemical safety goggles

Methods For Cleaning Up: Sweep up, place in a suitable container and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete. Avoid access to streams, lakes or ponds.

SECTION 7	<i>HANDLING AND STORAGE</i>
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Handling: Keep containers tightly closed.

Storage: Keep away from all sources of ignition. Recommended storage temperature below 30°C. For transportation purposes it is possible to store at temperatures up to 50°C. Store in a dry, well-ventilated area. Store away from incompatible materials (see "materials to avoid").

SECTION 8	<i>EXPOSURE CONTROLS/PERSONAL PROTECTION</i>
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Exposure Limits:

Components	ACGIH-TLV Data	OSHA (PEL) Data
Bromochloro-5,5-dimethylhydantoin 32718-18-6	Not determined	Not determined

Manufacturer's TLV-TWA Recommendation: 0.1 mg/m³

Ventilation Requirements: Use local exhaust as necessary, especially under dusty conditions. Ventilation must be sufficient to maintain atmospheric concentration below recommended exposure limit.

Personal Protective Equipment:

- **Respiratory Protection:** Respirator with combined filter (inorganic gas and dust).
- **Hand Protection:** PVC gloves
- **Eye Protection:** Chemical safety goggles
- **Skin and Body Protection:** Body covering clothes and boots

Hygiene Measures: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Safety shower and eye bath should be provided.

SECTION 9 **PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	White to off-white tablet with faint halogenous odour
Boiling Point/Range:	Not applicable
Melting Point/Range:	Not applicable (decomposes)
Flash Point:	Not applicable
Flammable/Explosion Limits:	Not available
Auto-Ignition Temperature:	Not available
Vapour Pressure:	9.35x10 ⁽⁻³⁾ Pa (25°C)
Evaporation Rate (ether=1):	Not applicable under standard conditions
Vapor Density:	Not applicable under standard conditions
Solubility (in water):	0.22 g/100ml at 25°C
Specific Gravity:	1.8-2.0
Decomposition Temperature:	> 160°C
Partition Coefficient (n-octanol/water):	Kow = <1 (pH 5-9)
Explosive Properties:	Dust may form a weak explosive mixture with air (class St1), but is not sensitive to ignition from electrostatic discharges.
Oxidizing Properties:	Oxidizer
Particle Size:	Not available

SECTION 10 **STABILITY AND REACTIVITY**

Stability: Stable under normal conditions

Materials To Avoid: -Oxidizing agents
-Bases
-COMBUSTIBLE ORGANIC MATERIALS

Conditions To Avoid: -Exposure to moisture
-Contact with combustible materials may initiate decomposition of the material and emission of smoke.
-Heating above decomposition temperature

Hazardous Decomposition Products: CO, HBr, Cl₂, NO_x, HCl, CO₂

Hazardous Polymerization: Will not occur

SECTION 11 **TOXICOLOGICAL INFORMATION**

Acute Toxicity:

- Rat Oral LD₅₀: 929 mg/kg
- Rat Inhalation LC₅₀: 1.1 mg/l/4 hour (powder)
- Dermal Irritation (rabbit): Corrosive

Dermal Sensitization: Sensitizer.

Chronic Toxicity: Not available

Mutagenicity: Mutagenic by the Ames Test
Mutagenic in the mouse lymphoma L5178Y test system
Non genotoxic in an in-vivo micronucleus test in mice
Non genotoxic in an in-vivo liver unscheduled DNA synthesis (USD) assay

Carcinogenicity: Not classified by IARC
Not included in NTP 12th Report on Carcinogens

SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity:

- **96 Hour-LC50, Fish**
 - 1.2 mg/l (Eastern oyster, Acute flow through)
 - 1.9 mg/l (Mysid shrimp, Acute flow through)
 - 0.4 mg/l (Rainbow trout, Static)
 - 0.46 mg/l (Bluegill sunfish, Static)
 - 1.6 mg/l (Sheepshead minnow, Acute flow through)

- **48 Hour-LC50, Daphnia magna** 0.75 mg/l (Static)

Avian Toxicity:

- **Oral LD50, Bobwhite quail** 1839 mg/kg
- **Dietary LC50, Mallard duck** >5620 ppm
- **Dietary LC50, Bobwhite quail** >5620 ppm

Bioaccumulative Potential: Based on low Kow values, i.e. less than 1, BCDMH would not be predicted to significantly accumulate in aquatic organisms.

Germany, Water Endangering Classes (WGK) 2

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of in approved landfill sites or an approved incinerator. Avoid access to streams, lakes or ponds. Observe all federal, state and local environmental regulations when disposing of this material. This material is classified as a RCRA hazardous waste with the characteristic of ignitability, hazardous waste number:D001.

Disposal of Packaging: Crush and bury empty containers. Do NOT throw into public waste disposal site. Avoid contact with organic materials and moisture. See conditions to avoid (Section 10).

SECTION 14 TRANSPORTATION DATA



- DOT:**
 - UN Number:** 1479
 - Proper Shipping Name:** Oxidizing Solid, n.o.s. (Bromo-Chloro-5,5-DimethylHydantoin)
 - Class:** 5.1 - Oxidizing Substances
 - Packing Group:** II

- TDG:**
 - UN Number:** 1479
 - Proper Shipping Name:** Oxidizing Solid, n.o.s. (Bromo-Chloro-5,5-DimethylHydantoin)
 - Class:** 5.1 - Oxidizing Substances
 - Packing Group:** II
 - Marine Pollutant:** Yes

- MEX:**
 - UN Number:** 1479
 - Proper Shipping Name:** Oxidizing Solid, n.o.s. (Bromo-Chloro-5,5-DimethylHydantoin)
 - Class:** 5.1 - Oxidizing Substances
 - Packing Group:** II
 - Marine Pollutant:** Yes

SECTION 15 **REGULATORY INFORMATION**

USA: This product is registered under FIFRA.
TSCA: EPA Number P-94-34.
Subject to reporting under SNUR (Significant New Use Rule) -any use, 60 FR 11037

SARA 313: This product does not contain a chemical listed at or above de minimis concentrations.

SARA (311, 312): This product is a hazardous chemical under 29CFR 1910.1200, and categorized as an immediate and delayed health, and reactivity physical hazard.

Waste Classifications: Not listed under CERCLA. If this product becomes a waste it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number:D001.

EC No.: 251-171-5

Japanese METI: ENCS No.:5-6368
China inventory: Listed in IECSC
Philippines: Listed in PICCS

SECTION 16 **ADDITIONAL INFORMATION**

The information in this safety data sheet is compiled in compliance with Regulation (EC) No 453/2010 dated 20 May 2010 and accurate to the best of our knowledge and experience at the date of issue specified. It is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product. This safety data sheet complements the technical information sheets but does not replace them and offers no warranty with regard to product properties.

Users are also forewarned for any hazards involved when the product is used for other purposes than those for which it is designed.

Date of Issue: 1/29/2016
Replaces Issue Dated: N/A