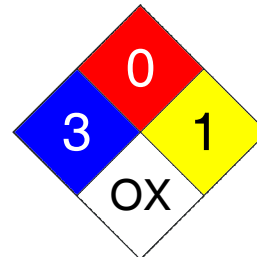


## 1. Product and Company Identification

**Product Name** Spa Bromine Tablets  
**CAS #** Mixture  
**Product use** Controls bacteria and algae in spas.  
**Manufacturer** Natural Chemistry, Inc.  
 40 Richards Ave.  
 Norwalk, CT 06854 US  
 Phone: (800) 753-1233  
 Emergency Phone: CHEMTREC (800) 424-9300

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 3
Flammability	0
Physical Hazard	1
Personal Protection	B



## 2. Hazards Identification

**Emergency overview** DANGER -- CORROSIVE  
 Oxidizing material.

**Potential short term health effects**

**Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.

**Eyes** Causes chemical burns. May cause blindness.

**Skin** May cause chemical burns.

**Inhalation** Dust may cause respiratory tract irritation or chemical burns.

**Ingestion** Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.

**Target organs** Eyes. Skin. Respiratory system.

**Chronic effects** Prolonged or repeated exposure can cause drying, defatting and dermatitis.

**Signs and symptoms** Symptoms may include redness, edema, drying, defatting and cracking of the skin. The product causes burns of eyes, skin and mucous membranes.

## 3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
2,4-Imidazolidinedione, 1-bromo-3-chloro-5,5-dimethyl-	16079-88-2	90 - 100

## 4. First Aid Measures

**First aid procedures**

**Eye contact** Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.

**Skin contact** Brush away excess of dry material. Immediately flush with cool water for 15 minutes. Obtain medical attention if irritation persists.

**Inhalation** If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

**Ingestion** Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

**General advice** If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

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## 5. Fire Fighting Measures

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<b>Flammable properties</b>	Not flammable by OSHA criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Dry chemical. Carbon dioxide. Water spray.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Container may explode in heat of fire.
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Hydrogen chloride. Hydrogen bromide.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

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## 6. Accidental Release Measures

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<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
<b>Methods for containment</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice.

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## 7. Handling and Storage

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<b>Handling</b>	Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing.
<b>Storage</b>	Keep out of reach of children. Store in a closed container away from incompatible materials. Keep away from heat, open flames or other sources of ignition.

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## 8. Exposure Controls / Personal Protection

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<b>Exposure limits</b>	
<b>Ingredient(s)</b>	<b>Exposure Limits</b>
2,4-Imidazolidinedione, 1-bromo-3-chloro-5,5-dimethyl-	<b>ACGIH-TLV</b> Not established <b>OSHA-PEL</b> Not established
<b>Engineering controls</b>	Use only under good ventilation conditions or with respiratory protection.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Chemical splash goggles.
<b>Hand protection</b>	PVC gloves. Confirm with a reputable supplier first.
<b>Skin and body protection</b>	As required by employer code.
<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

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## 9. Physical & Chemical Properties

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<b>Appearance</b>	Tablet
<b>Color</b>	White to off white

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<b>Form</b>	Solid
<b>Odor</b>	Slight halogen
<b>Odor threshold</b>	Not available
<b>Physical state</b>	Solid
<b>pH</b>	Not available
<b>Freezing point</b>	Not available
<b>Boiling point</b>	Not available
<b>Flash point</b>	Not available
<b>Evaporation rate</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	Not applicable
<b>Flammability limits in air, upper, % by volume</b>	Not applicable
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not available
<b>Specific gravity</b>	Not available
<b>Octanol/water coefficient</b>	Not available
<b>Auto-ignition temperature</b>	Not available

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## 10. Chemical Stability & Reactivity Information

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<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Do not mix with other chemicals. Contact with organic materials and heat may cause fire.
<b>Incompatible materials</b>	May react with strong bases or oxidizing agents.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Hydrogen chloride. Hydrogen bromide.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

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## 11. Toxicological Information

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### Component analysis - LC50

Ingredient(s)	LC50
2,4-Imidazolidinedione, 1-bromo-3-chloro-5,5-dimethyl-	Not available

### Component analysis - Oral LD50

Ingredient(s)	LD50
2,4-Imidazolidinedione, 1-bromo-3-chloro-5,5-dimethyl-	578 mg/kg rat

### Effects of acute exposure

<b>Eye</b>	Causes chemical burns. May cause blindness.
<b>Skin</b>	May cause chemical burns.
<b>Inhalation</b>	Dust may cause respiratory tract irritation or chemical burns.
<b>Ingestion</b>	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
<b>Sensitization</b>	Non-hazardous by OSHA criteria.
<b>Chronic effects</b>	Non-hazardous by OSHA criteria.
<b>Carcinogenicity</b>	Non-hazardous by OSHA criteria.
<b>Mutagenicity</b>	Non-hazardous by OSHA criteria.
<b>Reproductive effects</b>	Non-hazardous by OSHA criteria.
<b>Teratogenicity</b>	Non-hazardous by OSHA criteria.

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## 12. Ecological Information

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<b>Ecotoxicity</b>	Components of this product have been identified as having potential environmental concerns. 0.4 mg/l, Rainbow Trout, 96.00 Hours, LC50 0.75 mg/l, Daphnia, 48.00 Hours, LC50
<b>Environmental effects</b>	Not available

<b>Aquatic toxicity</b>	Not available
<b>Persistence / degradability</b>	Not available
<b>Bioaccumulation / accumulation</b>	Not available
<b>Partition coefficient</b>	Not available
<b>Mobility in environmental media</b>	Not available
<b>Chemical fate information</b>	Not available

### 13. Disposal Considerations

<b>Waste codes</b>	Not available
<b>Disposal instructions</b>	Review federal, provincial, and local government requirements prior to disposal.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

### 14. Transport Information

#### U.S. Department of Transportation (DOT)

**Basic shipping requirements:**

<b>Proper shipping name</b>	Oxidizing solid, n.o.s. (2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO-5,5-DIMETHYL-)
<b>Hazard class</b>	5.1
<b>UN number</b>	UN1479
<b>Packing group</b>	II
<b>Additional information:</b>	
<b>Special provisions</b>	IB8, IP2, IP4, T3, TP33
<b>Packaging exceptions</b>	<2.2 Pounds - Consumer Commodity ORM-D
<b>ERG number</b>	140



### 15. Regulatory Information

<b>US Federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.  CERCLA/SARA Hazardous Substances - Not applicable.
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#### Occupational Safety and Health Administration (OSHA)

<b>29 CFR 1910.1200 hazardous chemical</b>	Yes
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#### CERCLA (Superfund) reportable quantity

None

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

<b>Hazard categories</b>	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - Yes
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<b>Section 302 extremely hazardous substance</b>	No
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<b>Section 311 hazardous chemical</b>	Yes
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<b>Clean Air Act (CAA)</b>	Not available
<b>Clean Water Act (CWA)</b>	Not available
<b>Safe Drinking Water Act (SDWA)</b>	Not available
<b>Drug Enforcement Agency (DEA)</b>	Not available
<b>Food and Drug Administration (FDA)</b>	Not available

**State regulations**

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**Inventory status**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

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## 16. Other Information

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**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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**Prepared by**

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