

# SAFETY DATA SHEET

Revision Date 10-May-2016

Version 13

## 1. IDENTIFICATION

### Product identifier

**Product Name** PROGUARD BROMINATING TABLETS

### Other means of identification

**Product Code** 22028BPG

**UN/ID no.** UN1479

### Recommended use of the chemical and restrictions on use

**Recommended Use** Swimming Pool Product. Spa Product.

**Uses advised against** Do not mix with other chemicals

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Bio-Lab, Inc.  
P.O. Box 300002  
Lawrenceville, GA 30049-1002  
Telephone 800-859-7946

### Emergency telephone number

**Emergency Telephone** Chemtrec (Transportation) 1-800-424-9300, 703-527-3887  
Poison Control Center (Medical) : (877) 800-5553

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 5
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Oxidizing solids	Category 2

### Label elements

#### **Emergency Overview**

**Danger**

#### **Hazard statements**

Harmful if swallowed  
May be harmful in contact with skin  
Causes severe skin burns and eye damage  
May intensify fire; oxidizer



**Color** white **Physical state** Solid **Odor** Chlorine Bromine

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
 Keep/Store away from clothing/ combustible materials

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a POISON CENTER or doctor/physician  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a POISON CENTER or doctor/physician  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth  
 Do NOT induce vomiting  
 In case of fire: Use CO2, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

0% of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Mixture**

Chemical Name	CAS No.	Weight-%
1-bromo-3-chloro-5,5-dimethylimidazolidine-2,4-dione	16079-88-2	96

**4. FIRST AID MEASURES**

**Description of first aid measures**

**General advice** If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

**Eye contact** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

**Skin contact** Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Call a physician.

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<b>Inhalation</b>	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Call a physician.
<b>Ingestion</b>	Call a physician immediately. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Have person sip a glass of water if able to swallow.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required.
<b><u>Most important symptoms and effects, both acute and delayed</u></b>	
<b>Symptoms</b>	No information available.
<b><u>Indication of any immediate medical attention and special treatment needed</u></b>	
<b>Note to physicians</b>	Treat symptomatically. Probable mucosal damage may contraindicate the use of gastric lavage.

## 5. FIRE-FIGHTING MEASURES

### **Suitable extinguishing media**

Flood fire area with water from a distance.

**Unsuitable extinguishing media** Do not use dry chemicals, carbon dioxide, or halogenated extinguishing agents.

### **Specific hazards arising from the chemical**

Do not let the fire burn.

#### **Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### **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.

## 6. ACCIDENTAL RELEASE MEASURES

### **Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas.

### **Environmental precautions**

**Environmental precautions** Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. See Section 12 for additional ecological information.

### **Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Do not add water to spilled material. Using clean dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place into clean dry containers for disposal. Do not close containers containing wet or damp material. They should be left open to disperse any hazardous gases that may form.

**Methods for cleaning up** Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Pick

up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Do not use floor sweeping compounds to clean up spills. Do not transport wet or damp material. Contact supplier in Section 1 for instructions, especially for damp or contaminated material.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling**                      Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation. Do not mix with other chemicals. Keep/Store away from clothing/ combustible materials. Wash thoroughly after handling. Use only in well-ventilated areas.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions**                      Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in a dry place. Keep in properly labeled containers.

**Incompatible materials**                      Incompatible with strong acids and bases. Ammonia. Calcium hypochlorite. Combustible material. Do not mix with other swimming pool/spa chemicals in their concentrated forms. Reducing agent.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**                      This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Appropriate engineering controls**

**Engineering Controls**                      Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      Wear safety glasses with side shields (or goggles). Tight sealing safety goggles.

**Skin and body protection**                      Wear protective gloves and protective clothing.

**Respiratory protection**                      If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations**                      Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b>	Solid	<b>Odor</b>	Chlorine Bromine
<b>Appearance</b>	tablet	<b>Odor threshold</b>	No information available
<b>Color</b>	white		

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
<b>pH</b>	4.5	0.1% solution
<b>Melting point/freezing point</b>	120 °C / 248 °F	Decomposes on heating
<b>Boiling point / boiling range</b>	No information available	

<b>Flash point</b>	No information available	
<b>Evaporation rate</b>	No information available	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	No information available	
<b>Lower flammability limit:</b>	No information available	
<b>Vapor pressure</b>	No information available	
<b>Vapor density</b>	No information available	
<b>Specific Gravity</b>	No information available	
<b>Water solubility</b>	Soluble in water	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient</b>	No information available	
<b>Autoignition temperature</b>	No information available	
<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	No information available	
<b>Dynamic viscosity</b>	No information available	
<b>Density</b>	0.87-0.92	g/cm3
<b>Bulk density</b>	No information available	
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	May intensify fire; oxidizer	

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**

Stable under normal conditions

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Extremes of temperature and direct sunlight. Protect from moisture. Do not mix with other chemicals.

**Incompatible materials**

Incompatible with strong acids and bases. Ammonia. Calcium hypochlorite. Combustible material. Do not mix with other swimming pool/spa chemicals in their concentrated forms. Reducing agent.

**Hazardous Decomposition Products**

Thermal decomposition can lead to release of toxic/corrosive gases and vapors.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

<b>Inhalation</b>	Irritating to respiratory system.
<b>Eye contact</b>	Risk of serious damage to eyes.
<b>Skin contact</b>	Irritating to skin. Contact with moist skin may cause skin burns. Causes burns.
<b>Ingestion</b>	Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
1-bromo-3-chloro-5,5-dimethylimidazole-2,4-dione 16079-88-2	= 1390 mg/kg ( Rat )	> 2 g/kg ( Rabbit )	-

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

**Oral LD50** 578 mg/kg (rat)  
**Dermal LD50** > 2000 mg/kg (rabbit)

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Toxic to aquatic life

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Do not reuse container. Refer to all federal, state and local regulations prior to disposal of container and unused contents by reuse, recycle or disposal.

**14. TRANSPORT INFORMATION**

**Note:** Limited quantity (LQ) exception is possible

**DOT**

**UN/ID no.** UN1479  
**Proper shipping name** Oxidizing solid, n.o.s. (Contains bromo-chloro-dimethylhydantoin)  
**Hazard Class** 5.1  
**Packing Group** III  
**Description** UN1479, Oxidizing solid, n.o.s. (Contains bromo-chloro-dimethylhydantoin), 5.1, III

**Emergency Response Guide Number** 140

**TDG**

**UN/ID no.** UN3085  
**Proper shipping name** Oxidizing solid, corrosive, n.o.s. (Contains Bromo-chloro-dimethylhydantoin)  
**Hazard Class** 5.1  
**Subsidiary class** 8  
**Packing Group** III  
**Description** UN3085, Oxidizing solid, corrosive, n.o.s. (Contains bromo-chloro-dimethylhydantoin), 5.1 (8), III

**IATA**

**UN/ID no.** UN3085  
**Proper shipping name** Oxidizing solid, corrosive, n.o.s. (Contains Bromo-chloro-dimethylhydantoin)  
**Hazard Class** 5.1  
**Subsidiary hazard class** 8  
**Packing Group** III  
**Description** UN3085, Oxidizing solid, corrosive, n.o.s. (Contains bromo-chloro-dimethylhydantoin), 5.1 (8), III

**IMDG**

**UN/ID no.** UN3085  
**Proper shipping name** Oxidizing solid, corrosive, n.o.s. (Contains Bromo-chloro-dimethylhydantoin)  
**Hazard Class** 5.1  
**Subsidiary hazard class** 8  
**Packing Group** III  
**EmS-No.** F-A, S-Q  
**Marine pollutant** This material meets the definition of a marine pollutant

**15. REGULATORY INFORMATION**

**International Inventories**

**TSCA** Complies  
**DSL/NDSL** Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**US 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 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level

pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** 5185-420

**EPA Statement**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**Difference between SDS and EPA Pesticide label**

DANGER. Highly Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. Irritating to nose and throat. Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles or safety glasses). Wear protective clothing and rubber gloves when handling this product. Avoid breathing dust and fumes. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b><u>NFPA</u></b>	Health hazards 3	Flammability 0	Instability 1	Physical and Chemical Properties OX
<b><u>HMIS</u></b>	Health hazards 3	Flammability 0	Physical hazards 1	Personal protection X

**Prepared By** Regulatory Affairs  
**Revision Date** 10-May-2016  
**Revision Note** No information available

**Disclaimer**

The information provided in this Material Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

**End of Safety Data Sheet**