SAFETY DATA SHEET

1. IDENTIFICATION

Product Name: ProGuard Brominating Tabs

Product Code: 22036BPG

UN/ID no.: UN3085

Recommended Use of the chemical and restrictions on use:
Recommended Use: Swimming pool sanitizer.
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)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 1</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Category 1</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Oxidizing solids</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Label elements

Emergency Overview

Danger:

Hazard statements:
Harmful if swallowed
Causes severe skin burns and eye damage
May cause an allergic skin reaction
May cause respiratory irritation
May intensify fire; oxidizer
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
Contaminated work clothing should not be allowed out of the workplace
Use only outdoors or in a well-ventilated area
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
Specific treatment (see first aid on this label)
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 skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting
In case of fire: Water only; no dry chemical, CO₂ or Halon

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other Information

3. COMPOSITION-INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Mixture</th>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1-bromo-3-chloro-5,5-dimethylhydantoin</td>
<td>16079-88-2</td>
<td>98</td>
</tr>
</tbody>
</table>

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.

Inhalation
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.

Ingestion
Call a physician or poison control center 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.

Self-protection of the first aider
Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed
Symptoms
No information available.

Indication of any immediate medical attention and special treatment needed
Note to physicians
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

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


Incompatible materials


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
ProGuard Brominating Tabs

Physical state  Solid
Appearance  tablet
Color  white; off-white
Odor  Chlorine, Bromine
Odor threshold  No information available

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
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<tbody>
<tr>
<td>pH</td>
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<td>0.1% solution</td>
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<tr>
<td>Melting point/freezing point</td>
<td>120 °C / 248 °F</td>
<td>Decomposes on heating</td>
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<td>Boiling point / boiling range</td>
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<tr>
<td>Flash point</td>
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<tr>
<td>Evaporation rate</td>
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<tr>
<td>Flammability (solid, gas)</td>
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<td>Upper flammability limit:</td>
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<td>Lower flammability limit:</td>
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<tr>
<td>Vapor pressure</td>
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<tr>
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<td>Partition coefficient</td>
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<td>Autoignition temperature</td>
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<tr>
<td>Decomposition temperature</td>
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<tr>
<td>Kinematic viscosity</td>
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<td>Dynamic viscosity</td>
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<tr>
<td>Density</td>
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<td>Bulk density</td>
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<td>Explosive properties</td>
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<tr>
<td>Oxidizing properties</td>
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</table>

Other Information

Softening point  No information available
Molecular weight  No information available
VOC Content (%)  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

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

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation  Irritating to respiratory system.
Eye contact  Risk of serious damage to eyes.
Skin contact

Irritating to skin. Contact with moist skin may cause skin burns. Causes burns.

Ingestion

Harmful if swallowed.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-bromo-3-chloro-5,5-dimethylhydantoin</td>
<td>1390 mg/kg (Rat)</td>
<td>&gt; 2 g/kg (Rabbit)</td>
<td>-</td>
</tr>
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</table>

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

Respiratory system.

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.

<table>
<thead>
<tr>
<th>Value Type</th>
<th>Value</th>
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<tbody>
<tr>
<td>ATEmix (oral)</td>
<td>1405 mg/kg</td>
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<tr>
<td>ATEmix (dermal)</td>
<td>2035 mg/kg</td>
</tr>
<tr>
<td>Oral LD50</td>
<td>578 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life

98% of the mixture consists of components(s) of unknown hazards to the aquatic environment

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. UN3085
Proper shipping name Oxidizing solid, corrosive, n.o.s. (Contains bromo-chloro-dimethylhydantoin)
Hazard Class 5.1
Subsidiary class 8
Packing Group III

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

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

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
Acute health hazard Yes
Chronic Health Hazard No
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard 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 5185-509
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: 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, face shield 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 and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

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

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards 3</th>
<th>Flammability 0</th>
<th>Instability 1</th>
<th>Physical and Chemical Properties OX</th>
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<tbody>
<tr>
<td>HMIS</td>
<td>Health hazards 3</td>
<td>Flammability 0</td>
<td>Physical hazards 1</td>
<td>Personal protection X</td>
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</table>

Prepared By  Regulatory Affairs
Revision Date  17-Nov-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