1. Product And Company Identification

**Supplier**
GLB
1400 Bluegrass Lakes Parkway
Alpharetta, GA 30004 United States
Telephone Number: (770) 521-5999
FAX Number: (770) 521-5959
Web Site: www.poolspacare.com

**Manufacturer**
Advantis Technologies, Inc.
1400 Bluegrass Lakes Parkway
Alpharetta, GA 30004 United States
Telephone Number: (770) 521-5999
FAX Number: (770) 521-5959
Web Site: www.poolspacare.com

**Supplier Emergency Contacts & Phone Number**
CHEMTREC - DAY OR NIGHT: (800) 424-9300

**Issue Date:** 02/20/2008

**Product Name:** GLB Brominating Tablets
**CAS Number:** 32718-18-6
**Chemical Family:** Halogenated Hydantoin
**MSDS Number:** 345

2. Composition/Information On Ingredients

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS Number</th>
<th>Percent Of Total Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>BROMOCHLORO-5,5-DIMETHYLHYDANTOIN</td>
<td>32718-18-6</td>
<td></td>
</tr>
</tbody>
</table>

**EMERGENCY OVERVIEW**

White to off-white granular solid with faint halogenous odour
Corrosive
Causes irreversible eye damage and skin burns
Irritating to nose and throat
May be fatal if inhaled
Harmful if absorbed through skin or swallowed
Oxidizer

**Hazards Identification (Pictograms)**

3. Hazards Identification

**Primary Routes(s) Of Entry**
Skin contact, Inhalation, Ingestion, Eye Contact.

**Eye Hazards**
Corrosive. May cause permanent eye damage.

**Skin Hazards**
Exposure to wet skin may cause severe irritation. May cause skin sensitization.
3. Hazards Identification - Continued

**Ingestion Hazards**
- May be fatal if swallowed.

**Inhalation Hazards**
- Irritant to upper respiratory tract. Shortness of breath, headache and nausea.

**Chronic/Carcinogenicity Effects**
- There are no known chronic hazards.

**Conditions Aggravated By Exposure**
- Existing dermatitis may be aggravated by exposure.

4. First Aid Measures

**Eye**
- Hold eyes 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 advise.

**Skin**
- Take off contaminated clothing. If contact with skin: Brush off excess chmical and flush skin with cold water for at least 15 minutes. Call a poison control center or doctor for treatment advise.

**Ingestion**
- Call a physician or poison control center immediately for treatment advise. 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. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

**Inhalation**
- If inhaled: Remove to fresh air. If person is not breathing, call 911 or an ambulance, then give artifical respiration, preferable by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advise.

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

5. Fire Fighting Measures

**Fire Fighting (Pictograms)**

**Flash Point:** None °F
**Autoignition Point:** N/A °F
**Flammability Class:** Not flammable

**Fire And Explosion Hazards**
- Strong oxidizing agent. Forms explosive mixtures with combustible, organic or other easily oxidizable materials. When heated to decomposition, may release poisonous and corrosive fumes.

**Extinguishing Media**
- Dry powder, carbon dioxide or water spray.

**Fire Fighting Instructions**
- Cool containers with water spray. In closed stores, provide fire-fighters with self-contained breathing appratus in positive pressure mode.

6. Accidental Release Measures

**Personal Precautions:**
6. Accidental Release Measures - Continued

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.

### Handling & Storage (Pictograms)

<table>
<thead>
<tr>
<th>Pictogram 1</th>
<th>Pictogram 2</th>
</tr>
</thead>
</table>

7. Handling And Storage

**Handling Precautions**

Keep containers tightly closed.

**Storage Precautions**

Keep away from all sources of ignition. Recommended storage temperature below 30°C. Store in a dry, well-ventilated area away from incompatible materials.

### Protective Clothing (Pictograms)

<table>
<thead>
<tr>
<th>Pictogram 1</th>
<th>Pictogram 2</th>
<th>Pictogram 3</th>
</tr>
</thead>
</table>

8. Exposure Controls/Personal Protection

**Engineering Controls**

Use local exhaust as necessary, especially under dusty conditions. Ventilation must be sufficient to maintain atmospheric concentration below exposure limit (TLV-TWA: 0.1 mg/m³).

**Eye/Face Protection**

Chemical safety goggles

**Skin Protection**

Body covering clothes and boots
PVC gloves

**Respiratory Protection**

Approved respirator

**Other/General Protection**

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

9. Physical And Chemical Properties

**Appearance**

White to off-white tablet

**Odor**

Faint halogen odor.

Chemical Type: Mixture
Physical State: Solid
9. Physical And Chemical Properties - Continued

**Odor - Continued**
- Melting Point: N/A °F
- Boiling Point: N/A °F
- Specific Gravity: 1.8-2.0
- Molecular Weight: 241.5
- Vapor Pressure: 9.35x10(-3) Pa (25C)
- Solubility: 0.22g/100ml in water
- Evaporation Rate: N/A

10. Stability And Reactivity

**Stability:** Stable under normal conditions
**Hazardous Polymerization:** Will not occur

**Conditions To Avoid (Stability)**
- Exposure to moisture
- Heating above decomposition temperature (160C)

**Incompatible Materials**
- Oxidizing agents, bases, combustible organic materials

**Hazardous Decomposition Products**
- CO, HBr, Cl2, NOx, HCl, CO2

**Conditions To Avoid (Polymerization)**
- Will not occur under normal conditions.

11. Toxicological Information

**Skin Effects**
- Dermal irritation (rabbit): Corrosive
- Dermal sensitization (guinea pig): Sensitizer

**Acute Oral Effects**
- Oral LD50: 929 mg/kg (rat).

**Acute Inhalation Effects**
- Rat Inhalation LC50: 1.1 mg/l/4 hour (powder)

**Chronic/Carcinogenicity**
- Not known to be a carcinogen.
- Not classified by IARC.
- Not included in NTP 10th Report on Carcinogens.

**Mutagenicity (Genetic Effects)**
- Mutagenic by the Ames Test
- Mutagenic in the mouse lymphoma L5178Y test system
- Non genotoxic in micronucleous test in mice
- Non genotoxic in in-vivo liver unscheduled DNA synthesis (USD) assay

12. Ecological Information

**Acute Toxicity - Fish And Invertebrates**
- 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)
### 12. Ecological Information - Continued

<table>
<thead>
<tr>
<th><strong>Acute Toxicity - Fish And Invertebrates - Continued</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>48 Hour-LC50, Daphnia magna</td>
</tr>
<tr>
<td>0.75 mg/l (Static)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Acute And Dietary Toxicity - Birds</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50, Bobwhite quail</td>
</tr>
<tr>
<td>1839 mg/kg</td>
</tr>
<tr>
<td>Dietary LC50, Mallard duck</td>
</tr>
<tr>
<td>&gt;5620 ppm</td>
</tr>
<tr>
<td>Dietary LC50, Bobwhite quail</td>
</tr>
<tr>
<td>&gt;5620 ppm</td>
</tr>
</tbody>
</table>

### 13. Disposal Considerations

**Disposal Method:**
Dispose of in approved landfill sites or an approved incinerator. Crush and bury empty containers. Avoid access to streams, lakes, or ponds. Observe all federal, state, and local environmental regulations when disposing of this material.

**Empty Container:**
Crush and bury empty containers.

### 14. Transport Information

**Proper Shipping Name**
Oxidizing Solid, n.o.s. (Bromo, Chloro-5,5-DimethylHydantoin)

**Hazard Class**
5.1, PGII (<=1 kg Consumer Commodity ORM-D)

**DOT Identification Number**
UN1479

**DOT (Pictograms)**

### 15. Regulatory Information

**U.S. Regulatory Information**
- 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 Hazard Classes**
- Acute Health Hazard
- Reactivity Hazard

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

**State Regulations**
- This product or its components are not listed on any California Proposition 65 list of carcinogens or reproductive toxicants.

**Other International Regulations**
- EEC No. 251-171-5
- Japanese META: ENCS No.:5-6368
- China Inventory: Listed
- Philippines: Listed in PICCS
- 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
15. Regulatory Information - Continued

Other International Regulations - Continued

the following EPA hazardous waste number: D001.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>3</td>
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<tr>
<td>0</td>
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<tr>
<td>1</td>
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</tr>
</tbody>
</table>

HEALTH | 3
FLAMMABILITY | 0
REACTIVITY | 1
PERSONAL PROTECTION | B

16. Other Information

Revision/Preparer Information
MSDS Preparer: JHW
This MSDS Superceeds A Previous MSDS Dated: 03/07/2002

Disclaimer

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GLB

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