PRODUCT NAME: **GLB Algimycin Winter**

1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Supplier</th>
<th>REVISION DATE: 09/14/2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLB</td>
<td>SUPERCEDES: 03/17/2011</td>
</tr>
<tr>
<td>1400 Bluegrass Lakes Parkway , Alpharetta, GA, 30004 United States</td>
<td></td>
</tr>
<tr>
<td>Telephone: +17705215999</td>
<td></td>
</tr>
<tr>
<td>Telefax: +17705215959</td>
<td></td>
</tr>
<tr>
<td>Web: <a href="http://www.poolspacare.com">www.poolspacare.com</a></td>
<td></td>
</tr>
</tbody>
</table>

**Manufacturer**
Advantis Technologies
1400 Bluegrass Lakes Parkway
Alpharetta, GA 30004
United States of America

2. HAZARDS IDENTIFICATION

**OSHA Hazard Classification:** This product is not considered to be hazardous under OSHA 29 CFR 1910.1200.

**Routes of Entry:** This product will not exert a significant adverse effect to health from any route of exposure.

**Medical Conditions Aggravated:** None known.
Human Threshold Response Data

Odor Threshold: Not established for product.

Irritation Threshold: Not established for product.

Hazardous Materials Identification System / National Fire Protection Association Classifications

<table>
<thead>
<tr>
<th>Hazard Ratings</th>
<th>Health</th>
<th>Flammability</th>
<th>Physical / Instability</th>
<th>PPI / Special hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NFPA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Immediate (Acute) Health Effects

Inhalation Toxicity: Not expected to cause irritation. Not expected to be toxic by inhalation.

Skin Toxicity: Skin contact may cause minor irritation consisting of transient redness and/or swelling.

Eye Toxicity: Contact would be expected to cause transient redness if not washed out and left in the eye for an extended period of time.

Ingestion Toxicity: Not expected to be toxic by ingestion. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Prolonged (Chronic) Health Effects

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

Reproductive and Developmental Toxicity: Not known or reported to cause reproductive or developmental toxicity.

Inhalation: There are no known or reported effects from chronic exposure.

Skin Contact: There are no known or reported effects from chronic exposure.

Ingestion: There are no known or reported effects from chronic exposure.

Sensitization: Not expected to be a skin sensitizer.

Chronic Target Organ Toxicity: None known

Supplemental Health Hazard Information: No additional health information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS OR CHEMICAL NAME</th>
<th>CAS #</th>
<th>% RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLY [OXYETHYLENE (DIMETHYLIMINO) ETHYLENE]</td>
<td>31512-74-0</td>
<td></td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

General Advice: Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

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

Skin Contact: IF ON SKIN OR CLOTHING: 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.

Eye Contact: IF IN EYES: 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.

Ingestion: IF SWALLOWED: Call a 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flammability Summary (OSHA): The product is not flammable., Not combustible., The substance or mixture is not classified as pyrophoric., Not explosive

Flammable Properties

Fire / Explosion Hazards: Will not burn

Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Fire Fighting Instructions: Use water spray to cool unopened containers. In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8 to include a NIOSH approved self-contained breathing apparatus.
6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus.

Spill Mitigation Procedures
Air Release: not applicable
Water Release: soluble
Land Release: Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Do not contaminate ponds, waterways or ditches with chemical or used container.

Additional Spill Information: Prevent further leakage or spillage if safe to do so. Use personal protective equipment as required. Evacuate personnel to safe areas.

7. HANDLING AND STORAGE

Handling: Do not take internally. Avoid contact with skin, eyes and clothing. If in eyes or on skin, rinse well with water. Avoid breathing vapors, mist or gas.

Storage: Store in a cool, dry and well ventilated place. Isolate from incompatible materials. Do not freeze.

Incompatible Materials for Storage: Refer to Section 10, "Incompatible Materials."

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation: No exposure limits exist for the constituents of this product. Additional ventilation beyond that of general exhaust is not normally required.

Protective Equipment for Routine Use of Product
Respiratory Protection: Respiratory protection not normally needed.
Skin Protection: Impervious gloves
Eye Protection: Safety glasses with side-shields
Protective Clothing Type: impervious clothing

Exposure Limit Data

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
<th>Name of Limit</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLB Algimycin Winter</td>
<td>09/14/2012</td>
<td>Page 4 of 10</td>
<td></td>
</tr>
</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: liquid
Form: No data.
Color: No data.
Odor: No data.
Molecular Weight: None established
Specific Gravity: 1.0 - 1.2
   20 °C
pH: 6.0 - 8.0
Boiling Point: 100 °C
   212 °F
Freezing Point: not applicable
Melting Point: not applicable
Density:
Bulk Density: no data available
Vapor Pressure: no data available
Vapor Density: no data available
Viscosity: no data available
Solubility in Water: no data available
Partition coefficient n-octanol/water: Not applicable
Evaporation Rate: no data available
Oxidizing: None established
Volatiles, % by vol.: no data available
VOC Content: no data available
HAP Content: Not applicable

10. STABILITY AND REACTIVITY

Stability and Reactivity Summary: Stable under normal conditions.
Conditions to Avoid: Heat.
Chemical Incompatibility: Oxidizing agents
Decomposition Temperature: No data

11. TOXICOLOGICAL INFORMATION
### Component Animal Toxicology

**Oral LD50 value:**
- POLY [OXYETHYLENE (DIMETHYLIMINIO) ETHYLENE] 
  - LD50 (60% Active Ingredient) = 1,951 mg/kg rat male
- POLY [OXYETHYLENE (DIMETHYLIMINIO) ETHYLENE] 
  - LD50 (60% Active Ingredient) = 2,587 mg/kg rat female
- 2-PROPEN-1-AMINIUM, N,N-DIMETHYL-N-2-PROPENYL-, C
  - LD50 > 5,000 mg/kg Rat

**Dermal LD50 value:**
- POLY [OXYETHYLENE (DIMETHYLIMINIO) ETHYLENE] 
  - LD50 (60% Active Ingredient) > 2,000 mg/kg rabbit
- 2-PROPEN-1-AMINIUM, N,N-DIMETHYL-N-2-PROPENYL-, C
  - LD50 > 20,000 mg/kg Rabbit

**Inhalation LC50 value:**
- POLY [OXYETHYLENE (DIMETHYLIMINIO) ETHYLENE] 
  - LC50 4 h (60% Active Ingredient) = 2.9 ppm rat
- 2-PROPEN-1-AMINIUM, N,N-DIMETHYL-N-2-PROPENYL-, C
  - No data

### Product Animal Toxicity

**Oral LD50 value:** Believed to be > 2,000 mg/kg

**Dermal LD50 value:** Believed to be > 2,000 mg/kg

**Inhalation LC50 value:** No data.

- Skin Irritation: Not expected to cause irritation.
- Eye Irritation: Not expected to cause irritation.
- Skin Sensitization: Not believed to be sensitising to skin.

**Subchronic / Chronic Toxicity:** There are no known or reported effects from chronic exposure.

**Reproductive and Developmental Toxicity:** Not known or reported to cause reproductive or developmental toxicity.

**Mutagenicity:** Not known or reported to be mutagenic.
Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

POLY [OXYETHYLENE (DIMETHYLIMINIO) ETHYLENE
A two-year rat carcinogenicity study showed a slight increase in c-cell adenomas in female rats. Studies with male rats and male and female mice did not show any evidence of carcinogenic response. This product is not considered a carcinogen.

12. ECOLOGICAL INFORMATION

Overview: No data for product. Individual constituents are as follows:

Ecological Toxicity Values for: POLY [OXYETHYLENE (DIMETHYLIMINIO) ETHYLENE

<table>
<thead>
<tr>
<th>Species</th>
<th>LC50 (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainbow trout (Salmo gairdneri)</td>
<td>96 h</td>
</tr>
<tr>
<td>Bluegill sunfish</td>
<td>0.047</td>
</tr>
<tr>
<td>Fathead minnow (Pimephales promelas)</td>
<td>96 h 0.21</td>
</tr>
<tr>
<td>Mysid shrimp</td>
<td>96 h 13</td>
</tr>
<tr>
<td>Daphnia magna</td>
<td>48 h 0.37</td>
</tr>
</tbody>
</table>

Ecological Toxicity Values for: 2-PROPEN-1-AMINUM, N,N-DIMETHYL-N-2-PROPENYL-, C

<table>
<thead>
<tr>
<th>Species</th>
<th>LC50 (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bluegill sunfish</td>
<td>96 h 0.82 - 1.3</td>
</tr>
<tr>
<td>Rainbow trout (Salmo gairdneri)</td>
<td>96 h 0.37</td>
</tr>
<tr>
<td>Daphnia magna</td>
<td>48 h 0.9</td>
</tr>
<tr>
<td>Daphnia magna</td>
<td>48 h 1.2 - 2.5</td>
</tr>
<tr>
<td>Daphnia magna</td>
<td>48 h 24.8</td>
</tr>
</tbody>
</table>

In clear water, (40% Solution)
13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

Waste Disposal Summary: If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D. As a nonhazardous liquid waste, it should be disposed of in accordance with local, state and federal regulations.

Potential US EPA Waste Codes: not applicable

14. TRANSPORT INFORMATION

Land (US DOT): UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (POLY [OXYETHYLENE (DIMETHYLIMINIO) ETHYLENE]) 9 III

Water (IMDG): UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (POLY [OXYETHYLENE (DIMETHYLIMINIO) ETHYLENE]) 9 III MARINE POLLUTANT

Air (IATA): UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (POLY [OXYETHYLENE (DIMETHYLIMINIO) ETHYLENE]) 9 III

Emergency Response Guide Number: ERG # 171

Transportation Notes: Material is not regulated for ground transportation within the US if shipped in non-bulk packages. Material is not regulated as a marine pollutant for ground, rail car, or aircraft transportation within the USA if shipped in non bulk packages per marine pollutant exception 49 CFR 171.4(c).

EMS: F-A, S-F

15. REGULATORY INFORMATION

UNITED STATES:

Toxic Substances Control Act (TSCA): This is an EPA registered pesticide.

EPA Pesticide Registration Number: None established

GLB Algimycin Winter

REVISION DATE: 09/14/2012
FIFRA Listing of Pesticide Chemicals (40 CFR 180): This product is regulated under the Federal Insecticide, Fungicide and Rodenticide Act. It must be used for purposes consistent with its labeling.

Superfund Amendments and Reauthorization Act (SARA) Title III:

Hazard Categories Sections 311 / 312 (40 CFR 370.2):

<table>
<thead>
<tr>
<th>Health</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>None</td>
</tr>
</tbody>
</table>


**Extremely Hazardous Substance Section 302 - Threshold Planning Quantity:**

| ZUS_SAR302 | TPQ (threshold planning quantity) | None established |

**Reportable Quantity (49 CFR 172.101, Appendix):**

| ZUS_CERCLA | Reportable quantity | None established |
| ZUS_SAR302 | Reportable quantity  | None established |

**Supplier Notification Requirements (40 CFR 372.45), 313 Reportable Components**

| ZUS_SAR313 | De minimis concentration | None established |

**Clean Air Act Toxic ARP Section 112:**

| CAA 112R | None established |

**Clean Air Act Socmi:**

| HON SOC | None established |

**Clean Air Act VOC Section 111:**

| CAA 111 | None established |

**Clean Air Act Haz. Air Pollutants Section 112:**

| ZUS_CAAHAP | None established |
| ZUS_CAAHRP | None established |
| CAA AP   | None established |

**State Right-to-Know Regulations Status of Ingredients**

**Pennsylvania:**

<table>
<thead>
<tr>
<th>CAS #</th>
<th>COMPONENT NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GLB Algimycin Winter</td>
</tr>
</tbody>
</table>
ZUSPA_RTK

New Jersey:

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Massachusetts:

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California Proposition 65:

<table>
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<tr>
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<td>None established</td>
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</tbody>
</table>

WHMIS Hazard Classification:

None established

16. OTHER INFORMATION

MSDS REVISION STATUS:
SECTION REVISED: 1
Major References: Available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT.