MATERIAL SAFETY DATA SHEET
ZOECO ALTOSID® PRO-G INSECT GROWTH REGULATOR

Manufacturer: Wellmark International
Address: 1100 East Woodfield Road, Suite 500 Schaumburg, IL 60173
Emergency Phone: 1-800-248-7763
Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Zoecon Altosid® Pro-G Insect Growth Regulator
Chemical Name/Synonym: (S)- Methoprene; isopropyl (2E,4E,7S)-11-methoxy-3,7,11 trimethyl-2,4- dodecadienoate
Chemical Family: Terpenoid
Formula: C_{19}H_{34}O_{3}
EPA Registration No.: 2724-451
RF Number: 9010

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component (chemical, common name)</th>
<th>CAS Number</th>
<th>Weight</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(S)-Methoprene: Isopropyl (2E,4E,7S)-11-trimethyl-2,4- dodecadienoate</td>
<td>65733-16-6</td>
<td>1.50 %</td>
<td>Not established</td>
</tr>
<tr>
<td>Inert ingredients (trade secret and/or non-hazardous): Silica, Crystalline-Quartz</td>
<td>140808-60-7</td>
<td>98.50%</td>
<td>10 mg/m^3 OSHA, .1 mg/m^3 ACGIH</td>
</tr>
</tbody>
</table>

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENT

Caution: Keep out of the reach of children. Avoid contact with skin or eyes. In case of contact immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

SIGNS AND SYMPTOMS OF OVEREXPOSURE
No adverse reactions have resulted from normal human exposure during research and testing.

PRIMARY ROUTE OF ENTRY

<table>
<thead>
<tr>
<th>Dermal/Eye</th>
<th>Oral</th>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

ACUTE TOXICITY

| Oral: LD_{50} (rat): >34,000mg/kg (HDT-highest dose level tested) (S)-Methoprene |
| Dermal: LD_{50} (rabbit)>2,000 mg/kg (HDT) (S)- Methoprene |
| Inhalation: LC_{50} (rat) > 5.19 mg/L air (S) Methoprene |
OTHER TOXICOLOGICAL INFORMATION

Skin Irritation:  Non-irritating (rabbit)  (Based on (S) Methoprene)
Eye Irritation:  Practically non-irritating (rabbit)  (Based on (S) Methoprene)
Sensitizer:  Not considered a sensitizer (guinea pig)  (Based on (S) Methoprene)

4. FIRST AID MEASURES

Eye:  Hold eyelids 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 eyes.
Skin:  Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
Ingestion:  Give 1-2 glasses of water and try to induce vomiting. Refer victim to medical personnel. Never give anything by mouth to an unconscious person.
Inhalation:  Not likely due to product form. Remove to fresh air.
Note to Physician:  Treat symptomatically

5. FIRE FIGHTING MEASURES

NFPA Rating:  Health:  0  Fire:  0  Reactivity:  0
Flammability Class:  N/A
Flash Point:  Does not flash
Explosive Limits (% of Volume):  Not applicable
Extinguishing Media:  Water, foam, CO₂
Special Protective Equipment:  Firefighters should wear full protective clothing including self contained breathing apparatus
Fire Fighting Procedures:  Normal procedures. Do not allow fire fighting water to escape into waterways or sewers
Combustion Products:  None known
Unusual Fire/Explosion Hazards:  None known

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken:  Sweep up material. Place in a container for disposal. Do not allow spill to enter waterways inhabited by aquatic organisms
Absorbents:  Due to product form none necessary. If in liquid form absorb with clay granules, sawdust, dirt or equivalent
Incompatibles:  None known

7. HANDLING AND STORAGE

Handling:  Avoid contact with skin or eyes.
Storage:  Store closed containers in a cool dry place. Do not contaminate water, food or feed by storage or disposal.
8. EXPOSURE CONTROL / PERSONAL MEASURES

**Exposure Limits:** Silica, Amorphous, Precipitated = 6 mg/m3 (OSHA PEL) and 10 mg/m3 (ACGIH TLV)

**Ventilation:** Use with adequate ventilation.

**Personal Protective Equipment:** Due to the size and abrasiveness of the granule, use protective eyewear and clothing to minimize exposure during loading and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Dark gray to black granules with a slight hydrocarbon odor

**Boiling Point:** Not Applicable

**Melting Point:** Not Applicable

**Vapor Pressure (mm Hg):** Not Applicable

**Vapor Density (Air = 1):** Not Applicable

**Specific Gravity:** 1.04 where H2O=1

**Bulk Density:** Not Applicable

**Solubility:** 1ppm

**Evaporation Rate:** Not Applicable

**pH:** Not Applicable

10. STABILITY AND REACTIVITY

**Stability:** Stable

**Reactivity:** Non-Reactive

**Incompatibility w/ Other Materials:** None Known

**Decomposition Products:** None Known

**Hazardous Polymerization:** Will not occur

11. TOXICOLOGICAL INFORMATION

**CHRONIC TOXICITY [Based on (RS)- Methoprene]**
Methoprene is not considered as an oncogenic compound. The NOEL for non-carcinogenic effects in an 18 month mouse study was 250 ppm.

**DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Based on (RS)- Methoprene]**
Methoprene is not a teratogenic compound. The NOEL for maternal and embryo toxicity in rabbits was 200 mg/kg/day. The NOEL for reproductive effects in rats was 500 ppm.

**MUTAGENICITY [Specific to Ingredient(s)]**
Methoprene is not a mutagenic compound. (Based on (RS)- Methoprene)

**CARCINOGEN [Silica Crystalline Quartz (Sand)]** The process by which silica dust in the sand is agglomerated and coagulated by the cross-linked protein to form an essentially dust-free granule. The granule is glazed with a protein/charcoal coating that effectively seals the sand, and any concomitant silica, within the granule. Any dust that results from abrasion during handling, will consist of protein and charcoal. Exposure to silica dust from the finished product will not be expected to occur. Finished product not considered carcinogenic.
12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL FATE** (Based on Active Ingredients Only)

- **Hydrolysis:** Not hydrolyzed up to 30 days
- **Photolysis:** Rapidly degraded in sunlight
- **Soil half life:** 10-14 days, rapidly hydrolyzed in soil
- **Water solubility:** Disperses in water

**ECOTOXICITY** (Based on Active Ingredients Only)

- **Acute Toxicity:**
  - Fish: Trout LC50 760 ppb Bluegill >370 ppb
  - *Aquatic Invertebrates:* Daphnia LC50 360 ppb

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by disposal. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** Completely empty into application equipment. Then dispose of empty container in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

- **DOT49CFR Description:** Not regulated as hazardous by D.O.T
- **Freight Classification:** Insecticides, NOI other than poison

15. REGULATORY INFORMATION

- **CERCLA (Superfund):** Not regulated
- **RCRA:** Not regulated

**SARA 311/312 HAZARD CATEGORIES**

- **Immediate Health:** Yes (irritant)
- **Delayed Health:** No
- **Fire:** No
- **Sudden Pressure:** No
- **Reactivity:** No

*The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all inclusive and the manner and conditions of use and handling may involve other or additional considerations.*