MATERIAL SAFETY DATA SHEET  
ZOECON ALTOSID® XR EXTENDED RESIDUAL BRIQUETS

Manufacturer: Wellmark International  
Address: 1501 E. Woodfield Rd., Suite 200 West, 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® XR Extended Residual Briquets  
Chemical Name/Synonym: (S)-Methoprene; isopropyl (2E,4E,7S)-11-methoxy-3,7,11-trimethyl-2,4-dodecadienoate  
Chemical Family: Terpenoid  
Formula: C₁₉H₃₄O₃  
EPA Registration No.: 2724-421  
RF Number: 292A

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-methoxy-3,7,11-trimethyl-2,4-dodecadienoate</td>
<td>65733-16-6</td>
<td>2.1%</td>
<td>Not established</td>
</tr>
<tr>
<td>Inert ingredients (non-hazardous and/or trade secret)</td>
<td></td>
<td>97.9%</td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENT  
Caution: Keep out of the reach of children.

SIGNS AND SYMPTOMS OF OVEREXPOSURE  
No adverse reactions have resulted from normal human exposure during research and testing. Adverse animal reactions to this product have not been shown.

PRIMARY ROUTE OF ENTRY  
Dermal/Eye: Yes  
Oral: Yes  
Inhalation: No

ACUTE TOXICITY  
Oral: LD₅₀ (rat): >34,000 mg/kg (highest dose level tested) (Based on (S)-Methoprene)  
Dermal: LD₅₀ (rabbit): >2,000 mg/kg (Hot) (highest dose level tested) (Based on (S)-Methoprene)  
Inhalation: LC₅₀ (rat): Not applicable to this product form

OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: Non-irritating (rabbit) (Based on (S) Methoprene)  
Eye Irritation: Mild/moderate irritation, corneal opacity at 1 hour - all animals clear by 72 hours (rabbit) (Based on (S) Methoprene)  
Sensitizer: Not a sensitizer (guinea pig) (Based on (S) Methoprene)
4. FIRST AID MEASURES

Eye: Hold eye open and flush slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.

Skin: Wash material off with soap and water. Remove contaminated clothing and footwear. See a physician if symptoms persist.

Ingestion: Drink 1-2 glasses of water and try to induce vomiting. Seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation: Although this is not a primary route of entry, remove victim to fresh air. See a physician if cough or other respiratory symptoms develop

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): N/A
Extinguishing Media: Water, foam, dry chemical
Special Protective Equipment: Firefighters should wear protective clothing, eye protection, and self contained breathing apparatus.

Fire Fighting Procedures: Normal procedures. Do not allow run-off to enter waterways inhabited by aquatic organisms

Combustion Products: None known
Unusual Fire/Explosion Hazards: None

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken: Sweep up material and place in a container for disposal. Do not allow spill to enter waterways inhabited by aquatic organisms

Absorbents: Not necessary due to product form and packaging

Incompatibles: None

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes or clothing. Do not remove briquets from container except for immediate use. Avoid breathing dust. Wash thoroughly with soap and water after handling.

Storage: Store in a cool, dry place. Do not contaminate food or feed by storage or disposal. Keep away from children.

8. EXPOSURE CONTROL / PERSONAL MEASURES

Exposure Limits: Not Applicable

Ventilation: Use with adequate ventilation.

Personal Protective Equipment: Under ordinary use conditions, no special protection is required. If prolonged exposure is expected, it is recommended to wear a MSHA/NIOSH approved organic vapor/pesticide respirator, impervious gloves, chemical goggles or safety glasses with side shields.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance and Odor</td>
<td>Grey to black solid with slight hydrocarbon odor.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.8492 g/cc</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Stable</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Non-reactive</td>
</tr>
<tr>
<td>Incompatibility w/ Other Materials</td>
<td>None</td>
</tr>
<tr>
<td>Decomposition Products</td>
<td>None</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Will not occur</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

**CHRONIC TOXICITY [Specific to Active Ingredient(s)]**
Methoprene is not considered as an oncogenic compound. The NOEL for non-carcinogen effects in an 18-month mouse study was 250ppm.

**DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Specific to Active Ingredient(s)]**
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 Active Ingredient(s)]**
Methoprene is not a mutagenic compound.

12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL FATE [Based on (RS)-Methoprene]**
- Hydrolysis: $T_{1/2} > 4$ weeks
- Photolysis: $T_{1/2} < 10$ hours
- Soil half life: ~ 10 days
- Water solubility: < 2 ppm

**ECOTOXICITY [Based on (S)-Methoprene]**
- Fish: LC50 (trout): 760 ppb, (bluegill): > 370 ppb ((S)-Methoprene); aquatic invertebrates: LC50 (Daphnia): 360 ppb ((S)-Methoprene This product is toxic to aquatic dipteran.)
13. DISPOSAL CONSIDERATIONS

Dispose of empty bag in 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 in boxes or drums. NMFC 102120

15. REGULATORY INFORMATION

**CERCLA (Superfund):** Not regulated

**RCRA:** Not regulated as hazardous

**SARA 311/312 HAZARD CATEGORIES**

- **Immediate Health:** Yes (irritation)
- **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.