Section 1. Product and Company Identification

Product Name: Ecdysterone
Product ID: E0813
Chemical Name: 20-Hydroxyecdysone; Crustecdysone; Isoinokosterone; Polypodine A

Supplier: LKT Laboratories, Inc
545 Phalen Blvd.
St. Paul, MN 55130 USA
Ph: 651-644-8424 Fax: 651-644-8357
www.lktlabs.com - getinfo@lktlabs.com

Emergency Phone #: 1-800-424-9300

Section 2. Hazards Identification

GHS Classification: Not a hazardous substance or mixture.

GHS Label elements including precautionary statements

Pictogram

Signal word

Hazard and precautionary statements

Hazard statement: Not a hazardous substance or mixture.
Precautionary statement: Not a hazardous substance or mixture.

HMIS Classification
Health hazard: 0
Chronic health hazard: 0
Flammability: 0
Physical hazard: 0

NFPA Rating
Health hazard: 0
Fire hazard: 0
Reactivity hazard: 0

Potential Health Effects
Inhalation - May be harmful if inhaled. May cause respiratory tract irritation.
Skin - May be harmful if absorbed through skin. May cause skin irritation.
Eyes - May cause eye irritation.
Ingestion - May be harmful if swallowed.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Ingredient: Title Compound</th>
<th>Percent: 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>C_{27}H_{44}O_{7}</td>
<td>Formula Wt.: 480.64</td>
</tr>
<tr>
<td>CAS No.</td>
<td>5289-74-7</td>
<td>EC No.</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

General advice
- Show this safety data sheet to the doctor in attendance.

Eye Contact
- Flush eyes with water as a precaution.

Skin Contact
- Wash off with soap and plenty of water.

Inhalation
- If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Ingestion
- Never give anything by mouth to an unconscious person. Rinse mouth with water.

Section 5. Firefighting Measures

Flash Point
- Not available.

Extinguishing Media
- Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Firefighting Procedures
- Wear self-contained breathing apparatus for fire fighting if necessary.

Unusual Fire Hazards
- Carbon oxides.

Section 6. Accidental Release Measures

Personal Precautions
- Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Environmental Precautions
- Do not let product enter drains.

Methods and materials for containment and cleanup
- Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7. Handling and Storage

Handling
- Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Storage Conditions
- Keep container tightly closed in a dry and well-ventilated place.
- Recommended storage temperature: -20°C
- Keep in a dry place.

Hazardous Decomposition Products
- Not available.

Other Remarks
Section 8. Exposure Controls/Personal Protection

Personal protective equipment
EXPOSURE CONTROLS
Contains no substances with occupational exposure limit values.
General industrial hygiene practice.
PERSONAL PROTECTION
Eye/face protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full and splash contact - Material: Nitrile rubber, Minimum layer thickness: 0.11 mm, Break through time: 460 min., Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M).
Body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>White powder.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>Not available.</td>
</tr>
<tr>
<td>242-244°C</td>
<td>Volatility</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point</td>
<td>Not available.</td>
</tr>
<tr>
<td>242-244°C</td>
<td>Density</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical State</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Ignition temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Autoignition temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower explosion limit</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Vapor pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper explosion limit</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Odor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water solubility</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Odor Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>log Pow: 1.307</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

Stability
Stable under recommended storage conditions.

Materials To Avoid
Strong oxidizing agents.

Hazardous Decomposition Products
Not available.
### Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral LD50</strong></td>
<td>Mouse - &gt; 9,000 mg/kg</td>
</tr>
<tr>
<td><strong>Inhalation LC50</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Dermal LD50</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Other information on acute toxicity</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Reproductive Toxicity</strong></td>
<td>Rat - subcutaneous</td>
</tr>
<tr>
<td></td>
<td>Paternal effects: Prostate, seminal vesicle, Cowper’s gland, accessory glands.</td>
</tr>
<tr>
<td><strong>Specific organ toxicity single exposure (GHS)</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Specific organ toxicity repeated exposure (GHS)</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Teratogenicity</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Serious eye damage/irritation</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitization</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Germ cell mutagenicity</strong></td>
<td>Mouse, liver, DNA damage</td>
</tr>
</tbody>
</table>

**Potential Health Effects:**
- Inhalation - May be harmful if inhaled. May cause respiratory tract irritation.
- Skin - May be harmful if absorbed through skin. May cause skin irritation.
- Eyes - May cause eye irritation.
- Ingestion - May be harmful if swallowed.

**Carcinogenicity:**
- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Section 12. Ecological Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mobility in soil</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Toxicity</strong></td>
<td>Toxicity to daphnia and other aquatic invertebrates. LC50 - Daphnia magna (Water flea) - 2.46 mg/l - 48 h</td>
</tr>
<tr>
<td><strong>PBT and vPvB assessment</strong></td>
<td>PBT/vPvB assessment not available as chemical safety assessment not required/not</td>
</tr>
</tbody>
</table>
Section 13. Disposal Considerations

**Waste Disposal**
- Dispose of material according to all federal, state, and local regulations.
- Offer material to a licensed, professional waste disposal company to dispose of as unused product.

Section 14. Transport Information

**DOT (US)**
- Not dangerous goods.

**IATA**
- Not dangerous goods.

**IMDG**
- Not dangerous goods.

Further Information

Section 15. Regulatory Information

**Reach No.**

**SARA 302 Components**
- SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**
- SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Components**
- No SARA hazards.

**Massachusetts Right To Know Components**
- No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**
- Ecdysterone CAS #: 5289-74-7 Revision Date:

**New Jersey Right To Know Components**
- Ecdysterone CAS #: 5289-74-7 Revision Date:

**California Prop 65 Components**
- This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16. Other Information

**Other Information**
- The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.