Material Safety Data Sheet  
Alprostadil MSDS

Section 1: Chemical Product and Company Identification

**Product Name:** Alprostadil  
**Catalog Codes:** SLA2749  
**CAS#:** 745-65-3  
**RTECS:** GY4569800  
**TSCA:** TSCA 8(b) inventory: No products were found.  
**CI#:** Not available.  
**Synonym:**  
\(-\)-Prostaglandin E1; 3-Hydroxy-2(3-hydroxy-1-octenyl)-5-oxocyclopentaneheptanoic acid; 1-3-Hydroxy-2-(3-hydroxy-1-octenyl)-5-oxocyclopentaneheptanoic acid; Prostaglandin E1; 1-Prostaglandin E1; PGE1; (11 alpha,13E,15S)-11,15-Dihydroxy-9-oxoprost-13-enoic Acid  
**Chemical Name:** Cyclopentaneheptanoic acid, 3-hydroxy-2-(3-hydroxy-1-octenyl)-5-oxo-,1-  
**Chemical Formula:** C20-H34-O5  

Contact Information:  
Sciencelab.com, Inc.  
14025 Smith Rd.  
Houston, Texas 77396  
US Sales: **1-800-901-7247**  
International Sales: **1-281-441-4400**  
Order Online: ScienceLab.com  
CHEMTREC (24HR Emergency Telephone), call:  
1-800-424-9300  
International CHEMTREC, call: 1-703-527-3887  
For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

**Composition:**

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alprostadil</td>
<td>745-65-3</td>
<td>100</td>
</tr>
</tbody>
</table>

**Toxicological Data on Ingredients:** Alprostadil: ORAL (LD50): Acute: 228 mg/kg [Rat]. 186 mg/kg [Mouse].

Section 3: Hazards Identification

**Potential Acute Health Effects:**  
Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

**Potential Chronic Health Effects:**  
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4: First Aid Measures
**Eye Contact:**
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

**Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

**Serious Skin Contact:** Not available.

**Inhalation:**
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:** Not available.

**Ingestion:**
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

**Serious Ingestion:** Not available.

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**Section 5: Fire and Explosion Data**

<table>
<thead>
<tr>
<th>Flammability of the Product:</th>
<th>May be combustible at high temperature.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-Ignition Temperature:</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash Points:</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammable Limits:</td>
<td>Not available.</td>
</tr>
<tr>
<td>Products of Combustion:</td>
<td>These products are carbon oxides (CO, CO2).</td>
</tr>
<tr>
<td>Fire Fighting Media and Instructions:</td>
<td>SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.</td>
</tr>
<tr>
<td>Special Remarks on Fire Hazards:</td>
<td>As with most organic solids, fire is possible at elevated temperatures</td>
</tr>
<tr>
<td>Special Remarks on Explosion Hazards:</td>
<td>Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.</td>
</tr>
</tbody>
</table>

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**Section 6: Accidental Release Measures**

**Small Spill:**
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:**
Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

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**Section 7: Handling and Storage**
Precautions:
Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.

Storage:

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (crystalline powder.)

Odor: Not available.

Taste: Not available.

Molecular Weight: 354.48 g/mole


pH (1% soln/water): Not available.

Boiling Point: Not available.

Melting Point: 110°C (230°F) - 116 C

Critical Temperature: Not available.

Specific Gravity: Not available.

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility: Not available.
Section 10: Stability and Reactivity Data

**Stability**: The product is stable.

**Instability Temperature**: Not available.

**Conditions of Instability**: Excess heat

**Incompatibility with various substances**: Not available.

**Corrosivity**: Not available.

**Special Remarks on Reactivity**: Sensitive to light.

**Special Remarks on Corrosivity**: Not available.

**Polymerization**: Will not occur.

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Section 11: Toxicological Information

**Routes of Entry**: Inhalation. Ingestion.

**Toxicity to Animals**: Acute oral toxicity (LD50): 186 mg/kg [Mouse].

**Chronic Effects on Humans**: Not available.

**Other Toxic Effects on Humans**: Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation.

**Special Remarks on Toxicity to Animals**: Not available.

**Special Remarks on Chronic Effects on Humans**: May cause adverse reproductive effects and birth defects (teratogenic). May affect genetic material (mutagenic).

**Special Remarks on other Toxic Effects on Humans**: Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: Harmful if swallowed. It may cause gastrointestinal tract irritation with flushing, fever, nausea, gastric regurgitation, diarrhea. It may affect behavior/central nervous system(seizures, hyperirritability, jitteriness, lethargy, respiration (bronchial wheezing, bradypnea, respiratory depression, dyspnea, tachypnea, respiratory distress), cardiovascular system (hypotension, bradycardia, tachycardia, cardiac arrest, congestive heart failure, 2nd degree heart block, ventricular fibrillation, spasm of the right ventricle), blood (hyperbilirubinemia, anemia, thrombocytopenia, disseminated intravascular coagulation), and urinary system (anuria, hematuria). Hypoglycemia or hyperkalemia may also occur.

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Section 12: Ecological Information

**Ecotoxicity**: Not available.

**BOD5 and COD**: Not available.

**Products of Biodegradation**: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation**: The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation**: Not available.

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Section 13: Disposal Considerations

**Waste Disposal**: Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Section 14: Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

Section 15: Other Regulatory Information

**Federal and State Regulations:** No products were found.

**Other Regulations:**

**Other Classifications:**
WHMIS (Canada): CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).

DSCL (EEC):
R22- Harmful if swallowed. S36- Wear suitable protective clothing. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.):
- Health Hazard: 2
- Fire Hazard: 1
- Reactivity: 0
- Personal Protection: E

National Fire Protection Association (U.S.A.):
- Health: 2
- Flammability: 1
- Reactivity: 0
- Specific hazard:

**Protective Equipment:**
Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

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**Last Updated:** 05/21/2013 12:00 PM

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