Material Safety Data Sheet
Orphenadrine Citrate MSDS

Section 1: Chemical Product and Company Identification

Product Name: Orphenadrine Citrate
Catalog Codes: SLO1033
CAS#: 4682-36-4
RTECS: Not available.
TSCA: TSCA 8(b) inventory: No products were found.
Cl#: Not available.
Synonym:
Chemical Name: Orphenadrine Citrate
Chemical Formula: C18-H23-N-O. C6-H8-O7

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>Orphenadrine Citrate</td>
<td>4682-36-4</td>
<td>100</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients: Orphenadrine Citrate: ORAL (LD50): Acute: 150 mg/kg [Mouse].

Section 3: Hazards Identification

Potential Acute Health Effects:
Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation (lung irritant). Severe over-exposure can result in death.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [None.].
Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4: First Aid Measures
**Eye Contact:**
Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

**Skin Contact:**
After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

**Serious Skin Contact:**
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Inhalation:** Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

**Serious Inhalation:** Not available.

**Ingestion:**
Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Serious Ingestion:** Not available.

### Section 5: Fire and Explosion Data

<table>
<thead>
<tr>
<th>Flammability of the Product: May be combustible at high temperature.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-Ignition Temperature: Not available.</td>
</tr>
<tr>
<td>Flash Points: Not available.</td>
</tr>
<tr>
<td>Flammable Limits: Not available.</td>
</tr>
<tr>
<td>Products of Combustion: These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).</td>
</tr>
<tr>
<td>Fire Hazards in Presence of Various Substances: Not available.</td>
</tr>
<tr>
<td>Explosion Hazards in Presence of Various Substances:</td>
</tr>
<tr>
<td>Risks of explosion of the product in presence of mechanical impact: Not available.</td>
</tr>
<tr>
<td>Risks of explosion of the product in presence of static discharge: Not available.</td>
</tr>
<tr>
<td>Fire Fighting Media and Instructions:</td>
</tr>
<tr>
<td>SMALL FIRE: Use DRY chemical powder.</td>
</tr>
<tr>
<td>LARGE FIRE: Use water spray, fog or foam. Do not use water jet.</td>
</tr>
<tr>
<td>Special Remarks on Fire Hazards: Not available.</td>
</tr>
<tr>
<td>Special Remarks on Explosion Hazards: Not available.</td>
</tr>
</tbody>
</table>

### 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.
**Section 7: Handling and Storage**

**Precautions:**
Keep locked up. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

**Storage:**
Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Highly toxic or infectious materials should be stored in a separate locked safety storage cabinet or room.

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**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:**
Splash goggles. 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.

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**Section 9: Physical and Chemical Properties**

**Physical state and appearance:** Solid. (Crystalline solid.)

**Odor:** Slight.

**Taste:** Bitter.

**Molecular Weight:** 461.51 g/mole

**Color:** White.

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

**Boiling Point:** Not available.

**Melting Point:** 136°C (276.8°F)

**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:**
- Partially dispersed in methanol, n-octanol.
- Very slightly dispersed in cold water, hot water.
- Is not dispersed in diethyl ether.
- See solubility in methanol, n-octanol.

**Solubility:**
- Partially soluble in methanol, n-octanol.
- Very slightly soluble in cold water, hot water.
- Insoluble in diethyl ether.

### Section 10: Stability and Reactivity Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stability</strong></td>
<td>The product is stable.</td>
</tr>
<tr>
<td><strong>Instability Temperature</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Conditions of Instability</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Incompatibility with various substances</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Corrosivity</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Special Remarks on Reactivity</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Special Remarks on Corrosivity</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Polymerization</strong></td>
<td>No.</td>
</tr>
</tbody>
</table>

### Section 11: Toxicological Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Routes of Entry</strong></td>
<td>Absorbed through skin. Eye contact. Inhalation.</td>
</tr>
<tr>
<td><strong>Toxicity to Animals</strong></td>
<td>Acute oral toxicity (LD50): 150 mg/kg [Mouse].</td>
</tr>
<tr>
<td><strong>Chronic Effects on Humans:</strong></td>
<td>DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [None.].</td>
</tr>
<tr>
<td><strong>Other Toxic Effects on Humans:</strong></td>
<td>Hazardous in case of skin contact (irritant), of inhalation (lung irritant).</td>
</tr>
<tr>
<td><strong>Special Remarks on Toxicity to Animals:</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Special Remarks on Chronic Effects on Humans:</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Special Remarks on other Toxic Effects on Humans:</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>
### 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.

### Section 13: Disposal Considerations

**Waste Disposal:**

### 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:** TSCA 8(b) inventory: No products were found.

**Other Regulations:** Not available.

**Other Classifications:**

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

**DSCL (EEC):**
R36/37/38- Irritating to eyes, respiratory system and skin.

**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:**

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

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/10/2005 11:07 AM

Last Updated: 10/10/2005 11:07 AM

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