Section 1. Product and Company Identification

Product Name: Ractopamine Hydrochloride
Product ID: R0110
Chemical Name (Synonyms): 4-(3-[2-Hydroxy-2-(4-hydroxyphenyl)ethyl]aminobutylphenol hydrochloride

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:
- Acute Toxicity, Oral (Category 4) H302
- Skin Sensitization (Category 1) H317
- Acute Toxicity, Inhalation (Category 4) H332

GHS Label elements including precautionary statements

Pictogram
Signal word: Warning
Hazard and precautionary statements:
- Hazard statements:
  H302 + H332 - Harmful if swallowed or if inhaled.
  H317 - May cause an allergic skin reaction.
- Precautionary statement:
  P261 - Avoid breathing dust, fumes, gas, mist, vapors, spray.
  P264 - Wash skin thoroughly after handling.
  P270 - Do not eat, drink or smoke when using this product.
  P271 - Use only outdoors or in a well-ventilated area.
  P272 - Contaminated work clothing should not be allowed out of the workplace.
  P280 - Wear protective gloves.
  P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
  P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
  P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  P312 - Call a POISON CENTER or doctor, physician if you feel unwell.
  P321 - Specific treatment (see supplemental first aid instructions on this label).
  P330 - Rinse mouth.
  P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.
  P363 - Wash contaminated clothing before reuse.
  P501 - Dispose of contents/container to an approved waste disposal plant.

HMIS Classification:
- Health Hazard: 2
- Flammability: 0
- Physical Hazards: 0

NFPA Rating:
- Health Hazard: 2
- Fire: 0
- Reactivity Hazard: 0

Potential Health Effects:
- Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
- Skin: May be harmful if absorbed through skin. May cause an allergic skin reaction. Causes skin irritation.
- Eyes: Causes eye irritation.
Ingestion: Acute toxicity. Harmful if swallowed.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Formula Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>C_{18}H_{23}NO_{3} \cdot HCl</td>
</tr>
<tr>
<td>CAS No.</td>
<td>90274-24-1</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Eye Contact
Flush eyes with water as a precaution.

Skin Contact
Wash off with soap and plenty of water. Consult a physician.

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

Ingestion
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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 firefighting if necessary.

Unusual Fire Hazards
Carbon oxides, nitrogen oxides (NOx), hydrogen chloride gas.

Section 6. Accidental Release Measures

Personal Precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation.

Environmental Precautions
Do not let product enter drains.

Methods and materials for containment and cleanup
Pick up and arrange disposal without creating dust. 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 tightly closed in container in a well-ventilated place. Recommended storage temperature: Ambient.

Hazardous Decomposition Products
Not available.

Other Remarks
None.
Section 8. Exposure Controls/Personal Protection

Personal protective equipment

EXPOSURE CONTROLS
Contains no substances with occupational exposure limit values. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

PERSONAL PROTECTION
Eye Protection - Face shield and safety glasses. 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.
Body Protection - Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory Protection - For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. 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>Off white or light yellow powder.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting Point</td>
<td>165-167C</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Volatility</td>
<td>Not available.</td>
</tr>
<tr>
<td>Density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

Stability
Stable under recommended storage conditions.

Materials To Avoid
Keep away from strong oxidizing agents.

Hazardous Decomposition Products
Not available.
Section 11. Toxicological Information

**Oral LD50** Not available.

**Inhalation LC50** Not available.

**Dermal LD50** Not available.

**Other information on acute toxicity** Not available.

**Skin corrosion/irritation** Not available.

**Serious eye damage/irritation** Not available.

**Respiratory or skin sensitization** May cause allergic skin reaction

**Germ cell mutagenicity** Not available.

**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.

**Reproductive Toxicity** Not available.

**Aspiration Hazard** Not available.

**Specific organ toxicity single exposure (GHS)** Inhalation - May cause respiratory irritation

**Specific organ toxicity repeated exposure (GHS)** Not available.

**Synergistic effects** Not available.

**Additional Information** RTECS: Not available

**Signs and symptoms of exposure** Not available.

**Potential Health Effects** Inhalation: May be harmful if inhaled. Causes respiratory tract irritation. Skin: May be harmful if absorbed through skin. May cause an allergic skin reaction. Causes skin irritation. Eyes: Causes eye irritation. Ingestion: Acute toxicity. Harmful if swallowed.

**Section 12. Ecological Information**

**Toxicity** Not available.

**Mobility in soil** Not available.

**PBT and vPvB assessment** PBT/vPvB assessment not available as chemical safety assessment not required/ not
Section 13. Disposal Considerations

**Waste Disposal**
Dispose of material according to all federal, state and local regulations. Offer material to a licensed professional disposal company to dispose of. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. 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 II, 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** Acute Health Hazard

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

**Pennsylvania Right To Know Components** Ractopamine Hydrochloride CAS #: 90274-24-1 Revision Date:

**New Jersey Right To Know Components** Ractopamine Hydrochloride CAS #: 90274-24-1 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.