Section 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Isoproterenol Hydrochloride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product ID</td>
<td>I7259</td>
</tr>
<tr>
<td>Chemical Name (Synonyms)</td>
<td>(+/-)-Isoprenaline hydrochloride; 1-(3',4'-Dihydroxyphenyl)-2-isopropylaminoethanol Hydrochloride; N-Isopropyl-DL-noradrenaline Hydrochloride</td>
</tr>
<tr>
<td>Supplier</td>
<td>LKT Laboratories, Inc</td>
</tr>
<tr>
<td></td>
<td>545 Phalen Blvd.</td>
</tr>
<tr>
<td></td>
<td>St. Paul, MN 55130 USA</td>
</tr>
<tr>
<td>Emergency Phone #</td>
<td>1-800-424-9300</td>
</tr>
</tbody>
</table>

Section 2. Hazards Identification

GHS Classification Not a hazardous substance or mixture.

GHS Label elements including precautionary statements

<table>
<thead>
<tr>
<th>Pictogram</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal word</td>
<td></td>
</tr>
<tr>
<td>Hazard and precautionary statements</td>
<td>Hazard statement</td>
</tr>
<tr>
<td>Not a hazardous substance or mixture.</td>
<td></td>
</tr>
<tr>
<td>Precautionary statement</td>
<td>Precautionary statement</td>
</tr>
<tr>
<td>Not a hazardous substance or mixture.</td>
<td></td>
</tr>
</tbody>
</table>

HMIS Classification

| Health hazard: 1 |
| Chronic health hazard: * |
| 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 irritation.
Skin - May be harmful if absorbed through skin. May cause skin irritation.
Eyes - May cause eye irritation.
Section 3. Composition/Information on Ingredients

Substances

<table>
<thead>
<tr>
<th>Ingredient: Title Compound</th>
<th>Percent: 100</th>
</tr>
</thead>
</table>

Formula: \( \text{C}_{11}\text{H}_{17}\text{NO}_3 \cdot \text{HCl} \)

CAS No.: 51-30-9

Formula Wt.: 247.72

EC No.: 200-089-8

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
Not available.

Section 6. Accidental Release Measures

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

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 formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. 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: Ambient

Hazardous Decomposition Products
Not available.

Other Remarks
Ingestion - May be harmful if swallowed.
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/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 to off-white powder.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boiling Point</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Melting Point</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>165.5-170°C</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solubility</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble in water (&gt;300 mg/L), ethanol (20 mg/mL), and methanol.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

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

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

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

<table>
<thead>
<tr>
<th>Water solubility</th>
<th>Odor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble in water (&gt;300 mg/L).</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partition coefficient: n-octanol/water</th>
<th>Odor Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relative vapor density</th>
<th>Evaporation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

Stability
Stable under recommended storage conditions.

Materials To Avoid
Oxidizing agents.

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

**Oral LD50**  
Rat - 2,221 mg/kg  
Mouse - 1,260 mg/kg

**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**  
Not available.

**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.

**Teratogenicity**  
Not available.

**Synergistic effects**  
Not available.

**Aspiration Hazard**  
Not available.

**Potential Health Effects**  
Inhalation - May be harmful if inhaled. May cause respiratory 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 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
Persistence and degradability: Not available.

Bioaccumulative potential: Not available.

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
Chronic health hazard

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

Pennsylvania Right To Know Components
Isoproterenol Hydrochloride CAS #: 51-30-9 Revision Date:

New Jersey Right To Know Components
Isoproterenol Hydrochloride CAS #: 51-30-9 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.
For emergencies in the USA, call CHEMTREC 800-424-9300