Section 1. Product and Company Identification

Product Name: Levamisole hydrochloride
Product ID: L1682
Chemical Name (Synonyms): Tetramisole hydrochloride; Citarin L; Ergamisol; Spartakon
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 3 ), H301

GHS Label elements including precautionary statements

Pictogram

Signal word: Danger

Hazard and precautionary statements

Hazard statement: H301 - Toxic if swallowed.
Precautionary statements:
P264 - Wash skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P321 - Specific treatment. See first aid measures.
P330 - Rinse mouth.
P405 - Store locked up.
P501 - Dispose of contents and/or container to an approved waste disposal plant.

HMIS Classification
Health hazard: 2
Chronic health hazard: *
Flammability: 0
Physical hazard: 0

NFPA Rating
Health hazard: 2
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: Acute toxicity. Toxic if swallowed.

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### Section 3. Composition/Information on Ingredients

**Substances**

<table>
<thead>
<tr>
<th>Formula</th>
<th>Formula Wt.</th>
<th>CAS No.</th>
<th>EC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\text{C}<em>{11}\text{H}</em>{12}\text{N}_2\text{S} \cdot \text{HCl}$</td>
<td>240.76</td>
<td>16595-80-5</td>
<td>240-654-6</td>
</tr>
</tbody>
</table>

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### 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. Take victim immediately to hospital. 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.

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### Section 5. Firefighting Measures

**Flash Point**

Not available.

**Extinguishing Media**

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

**Firefighting Procedures**

Wear self-contained breathing apparatus and protective clothing for fire fighting.

**Unusual Fire Hazards**

Carbon oxides, nitrogen oxides (NOx), sulfur oxides and hydrogen chloride gas.

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### Section 6. Accidental Release Measures

**Personal Precautions**

Wear respiratory protection. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Environmental Precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleanup**

Pick up and dispose without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

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### Section 7. Handling and Storage

**Handling**

Avoid formation of dust and aerosols. Avoid contact with skin and eyes. Provide proper exhaust ventilation where dust is formed.

**Storage Conditions**

Keep product in a dry and well-ventilated location with a container that is tightly closed. Recommended storage temperature: Ambient.

**Hazardous Decomposition Products**

Not available.

**Other Remarks**

This product is sensitive to light.
Section 8. Exposure Controls/Personal Protection

Personal protective equipment
EXPOSURE CONTROLS
This product contains no substances with occupational exposure limit values. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

PERSONAL PROTECTION
Eye/face protection: Use a face shield and safety glasses for protection. Eye protection should be approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection: This product should be handled with gloves. The gloves must be inspected prior to use. Use the proper glove removal technique (without touching glove’s outer surface) to avoid skin contact. Dispose of the 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: 480 min. Material tested: Dermatril® (KCL 740 / Aldrich Z677227, Size M).

Body protection: Wear a complete suit protecting against chemicals. The protective equipment must be selected according to the concentration and amount of the dangerous substance at the workplace.

Respiratory protection: Use a full-face particle respirator N99 (US) or P2 (EN 143) with cartridges as a backup to engineering controls where risk assessment shows they are appropriate. Use a full-face supplied air respirator if it is the sole means of protection. Use approved and government tested standards such as NIOSH (US) or CEN (EU) for selecting respirators and components.

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 or almost white crystalline powder.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Volatility</td>
</tr>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Density</td>
</tr>
<tr>
<td>228-230°C</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>pH</td>
</tr>
<tr>
<td>Soluble in water.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Ignition temperature</td>
</tr>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>Autoignition temperature</td>
</tr>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>Vapor pressure</td>
</tr>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Odor</td>
</tr>
<tr>
<td>Soluble in water.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Odor Threshold</td>
</tr>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>Evaporation rate</td>
</tr>
<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
Strong oxidizing agents.

Hazardous Decomposition Products
Not available.
Section 11. Toxicological Information

### Oral LD50
- **Rat** - 180mg/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.

### Reproductive Toxicity
- Not available.

### Aspiration Hazard
- Not available.

### Specific organ toxicity
- Single exposure (GHS)
  - Not available.

### Specific organ toxicity
- Repeated exposure (GHS)
  - Not available.

### Teratogenicity
- Not available.

### Signs and symptoms of exposure
- Liver, irregularities, based on human evidence.

### 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: Acute toxicity. Toxic if swallowed.

### Carcinogenicity
- \textbf{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.
- \textbf{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.
- \textbf{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.
- \textbf{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.

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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 available.
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 as unused product. This chemical must be dissolved or mixed with a combustible solvent and burned in a chemical incinerator equipped with an afterburner and scrubber. Always dispose as unused product.

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Section 14. Transport Information

**DOT (US)**
UN number: 2811  Class: 6.1  Packing group: III
Proper shipping name: Toxic solids, organic, n.o.s. (Levamisole hydrochloride)
Marine pollutant: No  Poison inhalation hazard: No

**IATA**
UN number: 2811  Class: 6.1  Packing group: III
Proper shipping name: Toxic solid, organic, n.o.s. (Levamisole hydrochloride)

**IMDG**
UN number: 2811  Class: 6.1  Packing group: III  EMS No.: F-A, S-A
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Levamisole hydrochloride)
Marine pollutant: No

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Section 15. Regulatory Information

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

**SARA 313 Components**
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 and chronic health hazard.

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

**Pennsylvania Right To Know Components**
Levamisole hydrochloride  CAS-No. 16595-80-5  Revision Date:

**New Jersey Right To Know Components**
Levamisole hydrochloride  CAS-No. 16595-80-5  Revision Date:

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

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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.