Section 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Clomipramine Hydrochloride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product ID</td>
<td>C4457</td>
</tr>
<tr>
<td>Chemical Name (Synonyms)</td>
<td></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></td>
<td>Ph: 651-644-8424 Fax: 651-644-8357</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.lktlabs.com">www.lktlabs.com</a> - <a href="mailto:getinfo@lktlabs.com">getinfo@lktlabs.com</a></td>
</tr>
</tbody>
</table>

Emergency Phone #: 1-800-424-9300

Section 2. Hazards Identification

GHS Classification
Acute toxicity, Oral (Category 4), H302
Reproductive toxicity (Category 2), H361
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410

GHS Label elements including precautionary statements

Pictogram

Signal word Warning

Hazard and precautionary statements

Hazard statements
H302 - Harmful if swallowed.
H361 - Suspected of damaging fertility or the unborn child.
H401 - Very toxic to aquatic life with long lasting effects.

Precautionary statements
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P264 - Wash skin thoroughly after handling.
P270 - Do not eat, drink, or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
P308 + P313 - IF exposed or concerned: Get medical advice/attention.
P391 - Collect spillage.
P405 - Store locked up.
P501 - Dispose of contents/container to an approved waste disposal plant.

HMIS Classification
Health hazard: 1
Chronic health hazard: 0
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. Harmful if swallowed. Reproductive toxicity: Suspected of damaging fertility or the unborn child.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Ingredient: Title Compound</th>
<th>Percent: 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>C_{19}H_{23}ClN_{2} \cdot HCl</td>
<td>Formula Wt. 351.32</td>
</tr>
<tr>
<td>CAS No.</td>
<td>17321-77-6</td>
<td>EC No. 241-344-3</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

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

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. Evacuate personnel to safe areas.

Environmental Precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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. 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
Storage class (TRGS 510): Non combustible solids.
### Section 8. Exposure Controls/Personal Protection

**Personal protective equipment**
- **EXPOSURE CONTROLS**: Contains no substances with occupational exposure limit values. Hazardous components without workplace control parameters.
- **Personal protection**: 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**: Safety glasses with side-shields conforming to EN 166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
  - **Skin protection**: 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**: Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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 powder.</td>
</tr>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boiling Point</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>189-190°C</td>
<td>Not available.</td>
</tr>
<tr>
<td>Not available.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Melting Point</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5 - 5 at 100 g/l</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solubility</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble in water (125 mg/mL), ethanol (70 mg/ml at 25° C), chloroform (1:3), DMSO (70 mg/ml at 25° C), and dilute aqueous acid.</td>
<td>3.5 - 5 at 100 g/l</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash Point</th>
<th>Ignition temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>350˚C</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>350˚C</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 (125 mg/mL).</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**: Strong oxidizing agents.

**Hazardous Decomposition Products**: Not available.
Section 11. Toxicological Information

**Oral LD50**
- Rat - 914 mg/kg  Behavioral: Convulsions or effect on seizure threshold. Lungs, thorax, or respiration: Cyanosis. Mouse - 470 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**
- Suspected human reproductive toxicant.
- Suspected of damaging the unborn child.

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

**Aspiration Hazard**
- No aspiration toxicity classification.

**Synergistic effects**
- Not available.

**Additional Information**
- RTECS: HN9055000

**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. Harmful if swallowed.
- Reproductive toxicity: Suspected of damaging fertility or the unborn child.

**Signs and symptoms of exposure**
- Ingestion may provoke the following symptoms: Dizziness, drowsiness, stupor, restlessness, vomiting, headache, difficulty in breathing, confusion, heartburn, blurred vision, convulsions.

Section 12. Ecological Information

**Toxicity**
- Toxicity to fish. LC50 - Danio rerio (Zebra fish) 0.43 mg/l - 96 h

**Mobility in soil**
- Not available.

**PBT and vPvB assessment**
- PBT/vPvB assessment not available as chemical safety assessment not required/not
**Persistence and degradability** Biodegradability - Result: Not rapidly biodegradable.

**Bioaccumulative potential** The product may be accumulated in organisms.

**Other adverse effects** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

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**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. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

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**Section 14. Transport Information**

**DOT (US)** Not dangerous goods.

**IATA**
- **UN number:** 3077
- **Class:** 9
- **Packing group:** III
- **Proper shipping name:** Environmentally hazardous substance, solid, n.o.s. (3-Chloro-10, 11-dihydro-N,N-dimethyl-5H-dibenz[b,f]azepine-5-propanamine hydrochloride)
- **Marine pollutant:** yes

**IMDG**
- **UN number:** 3077
- **Class:** 9
- **Packing group:** III
- **EMS #:** F-A, S-F
- **Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (3-Chloro-10, 11-dihydro-N,N-dimethyl-5H-dibenz[b,f]azepine-5-propanamine hydrochloride)
- **Marine pollutant:** yes

**Further Information** EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

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**Section 15. Regulatory Information**

**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** Acute health hazard, chronic health hazard.

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

**Pennsylvania Right To Know Components** Clomipramine Hydrochloride  CAS #: 17321-77-6  Revision Date: 2009-07-17

**New Jersey Right To Know Components** Clomipramine Hydrochloride  CAS #: 17321-77-6  Revision Date: 2009-07-17

**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.

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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.