Section 1. Product and Company Identification

**Product Name** Ketorolac Tromethamine

**Product ID** K1978

**Chemical Name** (Synonyms)

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
- Skin irritation (Category 2) H315
- Eye irritation (Category 2A) H319
- Specific target organ toxicity - single exposure (Category 3) Respiratory system H335

GHS Label elements including precautionary statements

**Pictogram**

**Signal word** Danger

**Hazard and precautionary statements**

**Hazard statements**
- H301 - Toxic if swallowed.
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.

**Precautionary statements**
- 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.
- P280 - Wear protective gloves, eye protection, face protection.
- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- 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.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 - Call a POISON CENTER/doctor if you feel unwell.
- P321 - Specific treatment (see supplemental first aid instruction on this label).
- P330 - Rinse mouth.
- P332 + P313 - If skin irritation occurs: Get medical advice/ attention.
- P337 + P313 - If eye irritation persists: Get medical advice/ attention.
- P362 - Take off contaminated clothing and wash before reuse.
- P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
- P405 - Store locked up.
- P501 - Dispose of contents/ 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. Causes skin irritation.
- Eyes - Causes serious eye irritation.
Ingestion - Acute toxicity. Toxic if swallowed.

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_{15}H_{13}NO_3 \cdot C_4H_11NO_3 )</td>
<td>376.40</td>
</tr>
<tr>
<td>CAS No.</td>
<td>74103-07-4</td>
<td>EC No.</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 plenty of water for at least 15 minutes and consult a physician.

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.

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
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 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 container tightly closed in a dry and well-ventilated place. Recommended storage temperature: Ambient

Hazardous Decomposition Products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

Other Remarks
Section 8. Exposure Controls/Personal Protection

**Personal protective equipment**  
**EXPOSURE CONTROLS**  
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:** 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. Full and splash contact - Material: Nitrile rubber. Minimum layer thickness: 0.11 mm, Break through time: 480 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>
<th>Boiling Point</th>
<th>Volatility</th>
<th>Melting Point</th>
<th>Density</th>
<th>Solubility</th>
<th>pH</th>
<th>Ignition temperature</th>
<th>Autoignition temperature</th>
<th>Lower explosion limit</th>
<th>Upper explosion limit</th>
<th>Water solubility</th>
<th>Partition coefficient: n-octanol/water</th>
<th>Odor</th>
<th>Odor Threshold</th>
<th>Relative vapor density</th>
<th>Evaporation rate</th>
</tr>
</thead>
</table>

Section 10. Stability and Reactivity

**Stability**  
Stable under recommended storage conditions.

**Materials To Avoid**  
Strong oxidizing agents.

**Hazardous Decomposition Products**  
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)
## Section 11. Toxicological Information

### Oral LD50
- Rat: 189 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.

### Reproductive Toxicity
- Not available.

### Specific organ toxicity single exposure (GHS)
- Inhalation: May cause respiratory irritation.

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

### Teratogenicity
- Not available.

### Additional Information
- RTECS: UY7759900
- Stomach - irregularities - based on human evidence.

### Signs and symptoms of exposure
- Stomach - 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. Causes skin irritation.
- Eyes: Causes serious eye irritation.
- Ingestion: Acute toxicity. Toxic if swallowed.

### 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.

## Section 12. Ecological Information

### Toxicty
- Not available.

### Mobility in soil
- Not available.

### PBT and vPvB assessment
- Not available as chemical safety assessment not required/not
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.

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

Section 14. Transport Information

DOT (US)
UN number: 2811  Class: 6.1  Packing Group: III
Proper shipping name: Toxic solid, organic, n.o.s. (Ketorolac Tromethamine)
Poison Inhalation Hazard: No

IATA
UN number: 2811  Class: 6.1  Packing Group: III
Proper shipping name: Toxic solid, organic, n.o.s. (Ketorolac Tromethamine)

IMDG
UN number: 2811  Class: 6.1  Packing Group: III  EMS #: F-A, S-A
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Ketorolac Tromethamine)

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
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
Ketorolac Tromethamine  CAS #: 74103-07-4  Revision Date:

New Jersey Right To Know Components
Ketorolac Tromethamine  CAS #: 74103-07-4  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.