



Health	2
Fire	1
Reactivity	0
Personal Protection	E

# Material Safety Data Sheet

## Ketorolac Tromethamine MSDS

### Section 1: Chemical Product and Company Identification

**Product Name:** Ketorolac Tromethamine

**Catalog Codes:** SLK1123, SLK1105

**CAS#:** 74103-07-4

**RTECS:** UY7759900

**TSCA:** TSCA 8(b) inventory: No products were found.

**CI#:** Not available.

**Synonym:** Toradol; Acular; Syntex; 1H-Pyrrolizine-1-carboxylic acid, 2,3-dihydro-5-benzoyl-, (+-)-, compd. with 2-amino-2-(hydroxymethyl)-1,3-propanediol (1:1); (+/-)5-benzoyl-2,3-dihydro-1H-pyrrolizine-1-carboxylic acid, 2-amino-2-(hydroxymethyl)-1,3-propanediol

**Chemical Name:** Ketorolac Tromethamine

**Chemical Formula:** C15-H13-N-O3.C4-H11-N-O3

#### Contact Information:

**Sciencelab.com, Inc.**

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: [ScienceLab.com](http://ScienceLab.com)

**CHEMTREC (24HR Emergency Telephone), call:**

1-800-424-9300

**International CHEMTREC, call:** 1-703-527-3887

**For non-emergency assistance, call:** 1-281-441-4400

### Section 2: Composition and Information on Ingredients

#### Composition:

Name	CAS #	% by Weight
Ketorolac Tromethamine	74103-07-4	100

**Toxicological Data on Ingredients:** Ketorolac Tromethamine: ORAL (LD50): Acute: 189 mg/kg [Rat]. 293 mg/kg [Mouse].

### Section 3: Hazards Identification

#### Potential Acute Health Effects:

Hazardous in case of ingestion, of inhalation (lung irritant). Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), . Severe over-exposure can result in death.

#### Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to blood, kidneys, liver, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

### Section 4: First Aid Measures

**Eye Contact:**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

**Skin Contact:**

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

**Serious Skin Contact:** Not available.

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:**

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

**Ingestion:**

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Wash (flush) out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

**Serious Ingestion:** Not available.

## Section 5: Fire and Explosion Data

**Flammability of the Product:** May be combustible at high temperature.

**Auto-Ignition Temperature:** Not available.

**Flash Points:** CLOSED CUP: Higher than 93.3°C (200°F).

**Flammable Limits:** Not available.

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).

**Fire Hazards in Presence of Various Substances:**

Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available. Slightly explosive in presence of open flames and sparks.

**Fire Fighting Media and Instructions:**

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

**Special Remarks on Fire Hazards:** As with most organic solids, fire is possible at elevated temperatures

**Special Remarks on Explosion Hazards:**

Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard.

## Section 6: Accidental Release Measures

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container.

**Large Spill:**

Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.

## Section 7: Handling and Storage

### Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

### Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Sensitive to light. Store in light-resistant containers.

## Section 8: Exposure Controls/Personal Protection

### Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Solid. (Crystalline solid. Powdered solid.)

**Odor:** Odorless.

**Taste:** Not available.

**Molecular Weight:** 376.4 g/mole

**Color:** White. Off-white.

**pH (1% soln/water):** Not available.

**Boiling Point:** Not available.

**Melting Point:** 162°C (323.6°F) - 165 C.

**Critical Temperature:** Not available.

**Specific Gravity:** Not available.

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** Not available.

**Solubility:** Solubility in Water: 200 g/l

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Excess heat, incompatible materials, light

**Incompatibility with various substances:** Reactive with oxidizing agents.

**Corrosivity:** Not available.

**Special Remarks on Reactivity:** Sensitive to light.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 189 mg/kg [Rat].

**Chronic Effects on Humans:** May cause damage to the following organs: blood, kidneys, liver, central nervous system (CNS).

**Other Toxic Effects on Humans:**

Hazardous in case of ingestion, of inhalation (lung irritant). Slightly hazardous in case of skin contact (irritant), .

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: Dust may cause eye irritation. Inhalation: Dust may cause respiratory tract and mucous membrane irritation. Ingestion: May be harmful if swallowed. May cause gastrointestinal tract irritation with gastritis, flatulence, gastrointestinal fullness, stomatitis, abnormal taste, swelling of tongue, nausea constipation or diarrhea, dyspepsia, gastrointestinal ulcerations and pain, bleeding and perforation. May affect behavior/Central Nervous System (ataxia, somnolence, depression, insomnia, paresthesia, hallucinations, headache, drowsiness, dizziness, inability to concentrate, dry mouth, excessive thirst, nervousness, tremor, insomnia, abnormal dreams, euphoria, stupor, hyperkinesia, distorted perceptions, vertigo, convulsions), blood (inhibits platelet aggregation and may prolong bleeding time; leukopenia; eosinophilia), metabolism (anorexia or increase in appetite), cardiovascular system (flushing, hypertension, palpitation, hypotension, pallor, syncope), respiratory system (rhinitis, cough, dyspnea, bronchiolar constriction, pulmonary edema), vision (blurred vision, abnormal vision), hearing (tinnitus, hearing loss), immune system (allergic/anaphylaxis, skin rash, Pruritis - in individuals with previously demonstrated hypersensitivity or in individuals with the complete or partial syndrome of nasal polyps, angioedema, asthma, or other allergic reactions to aspirin or other nonsteroidal anti-inflammatory drugs), kidneys (hematuria, proteinuria, polyuria, glomerular nephritis, interstitial nephritis, renal papillary necrosis, acute renal failure, nephrotic syndrome), and liver (elevation of liver enzymes). Chronic Potential Health Effects: Possible allergic reaction if the material is ingested, inhaled or in contact with skin. Ingestion: Prolonged or repeated ingestion may cause weight loss or weight gain and may have symptoms similar to that of acute ingestion. Medical Conditions Aggravated by Exposure: Impaired renal function, impaired liver function or liver disease, previously demonstrated hypersensitivity to Ketorolac Tromethamine, the complete or partial syndrome of nasal polyps, angioedema, asthma, or other allergic reactions to aspirin or other nonsteroidal anti-inflammatory drugs.

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

### Section 13: Disposal Considerations

**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

### Section 14: Transport Information

**DOT Classification:** CLASS 6.1: Poisonous material.

**Identification:** : Toxic Solid, organic, n.o.s.(Ketorolac Tromethamine) UNNA: 2811 PG: III

**Special Provisions for Transport:** Not available.

### Section 15: Other Regulatory Information

**Federal and State Regulations:** No products were found.

**Other Regulations:** OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

**Other Classifications:**

**WHMIS (Canada):** CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).

**DSCL (EEC):**

R25- Toxic if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36- Wear suitable protective clothing. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**HMIS (U.S.A.):**

**Health Hazard:** 2

**Fire Hazard:** 1

**Reactivity:** 0

**Personal Protection:** E

**National Fire Protection Association (U.S.A.):**

**Health:** 2

**Flammability:** 1

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:**

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

### Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

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