

# Material Safety Data Sheet

## Ketoprofen MSDS

### Section 1: Chemical Product and Company Identification

**Product Name:** Ketoprofen

**CAS#:** 22071-15-4

**Synonym:** Alrheumum, Aneol, Capisten, Epatec, Ketoprofene, Orudis, Profenid, Dexal, Keduril, Ketofen, Ketosolan, Kevadon, Oruvail;  
3-Benzoyl-alpha-methylbenzeneacetic acid;  
2-(3-Benzoylphenyl)propionic acid;  
2-(m-Benzoylphenyl)propionic acid; 3-Benzoylhydratropic acid; Benzeneacetic acid, 3-benzoyl-alpha-methyl;  
m-benzoylhydratropic acid

**Chemical Name:** Propionic acid, 2-(3-benzoylphenyl)-

**Chemical Formula:** C16-H14-O3

#### Contact Information:

**Optyphar Limited**

B-5F, 271 Lvke Road, Shanghai 201204, China

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

0086-21-61024511

**For non-emergency assistance, call:** 0086-21-61052120

### Section 2: Composition and Information on Ingredients

#### Composition:

**Name CAS # % by Weight**

Ketoprofen 22071-15-4 100

**Toxicological Data on Ingredients:** Ketoprofen: ORAL (LD50): Acute: 62.4 mg/kg [Rat]. 360 mg/kg [Mouse]. 1300 mg/kg [Guinea pig].

### Section 3: Hazards Identification

#### Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. 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, gastrointestinal tract.

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:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate

medical attention.

**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. 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:** Not available.

**Flammable Limits:** Not available.

**Products of Combustion:** These products are carbon oxides (CO, CO<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:**

Slightly explosive in presence of open flames and sparks.

Non-explosive in presence of shocks.

**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 presence 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. In case of insufficient ventilation, wear suitable

respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid

contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

**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:**

Splash goggles. 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 powder.)

**Odor:** Odorless.

**Taste:** Not available.

**Molecular Weight:** 254.28 g/mole

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

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

**Boiling Point:** Not available.

**Melting Point:** 92°C (197.6°F) ~ 95 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:** See solubility in water, diethyl ether, acetone.

**Solubility:**

Easily soluble in diethyl ether, acetone.

Practically insoluble in cold water.

Freely soluble in ethanol, and dichloromethane, chloroform.

Soluble in benzene and strong alkali.

Soluble in methanol.

**Section 10: Stability and Reactivity Data**

**Stability:** The product is stable.

**Instability Temperature:** Not available.

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

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

**Corrosivity:** Non-corrosive in presence of glass.

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

**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): 62.4 mg/kg [Rat].

**Chronic Effects on Humans:** May cause damage to the following organs: blood, kidneys, liver, gastrointestinal tract.

**Other Toxic Effects on Humans:** Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

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

**Special Remarks on Chronic Effects on Humans:**

May cause adverse reproductive effects and birth defects (teratogenic) based on animal test data.

May affect genetic material (mutagenic)

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

Acute Potential Health Effects:

Skin: May cause skin irritation.

Eyes: May cause eye irritation.

Inhalation: May cause respiratory tract irritation.

Ingestion: Harmful if swallowed. May cause gastrointestinal tract irritation and symptoms such as gastritis, dry

mouth, eructation, stomatitis, salivation, thirst, abdominal pain, nausea, vomiting, dyspepsia, diarrhea, flatulence,

constipation,. Other symptoms may include increased or decreased appetite, purpuric rash, exfoliative dermatitis, photosensitivity, skin discoloration, alopecia, eczema, sweating, bullous rash, urticaria, pruritis, anaphylactoid reaction, allergic reaction, tinnitus, fever, chills, central nervous system effects (headache, dizziness, somnolence, depression, malaise, insomnia, nervousness, dreams, amnesia, confusion, vertigo,

paresthesia, migraine, dysphoria, hallucination, nightmares, personality disorder, etc.), myalgia, heart palpitations,

tachycardia, hypertension, congestive heart failure, peripheral vascular disease, vasodilation, arrhythmias, myocardial infarction, libido disturbances, metabolic acidosis, visual disturbances. It may also affect the kidneys

(hematuria, renal failure, interstitial nephritis, nephrotic syndrome), and respiratory system (dyspnea, bronchospasm, hemoptysis, epistaxis, pharyngitis, rhinitis, laryngeal edema.

Chronic Potential Health Effects:

Ingestion: Prolonged or repeated ingestion may cause gastrointestinal bleeding, buccal necrosis, ulcerative colitis,

melena, fecal occult blood, peptic ulcer, intestinal ulceration, dysphagia, gastric ulcer, gastroenteritis, weight loss

or weight gain, abnormal liver function tests, colitis, cholestatic jaundice, kidney damage (renal papillary necrosis

and other abnormal renal pathology), renal failure, hematologic effects (agranulocytosis, anemia, hemolysis, purpura,

thrombocytopenia, hypocoagulability). Prolonged or repeated ingestion may also cause allergic reactions in

sensitive individuals as well as other symptoms similar that of acute ingestion.

**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**

IATA

No information available.

IMO

No information available.

RID/ADR

No information available.

## **Section 15: Other Regulatory Information**

**Federal and State Regulations:** TSCA 8(b) inventory: Ketoprofen

**Other Regulations:**

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

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Classifications:**

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

**DSCL (EEC):**

R22- Harmful if swallowed.

S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.

**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.

Splash goggles.

## **Section 16: Other Information**

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/09/2005 05:55 PM

**Last Updated:** 10/09/2005 05:55 PM

*The information above is believed to be accurate and represents the best information currently available to us. However, we*

*make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we*

*assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the*

*information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any*

*third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even*

*if ScienceLab.com has been advised of the possibility of such damages.*