

Ketoprofen USP Micronized

SDS Preparation Date (06/20/2017):

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SAFETY DATA SHEET

Section 1 Identification of the substance/mixture and of the company/undertaking

Product Identifier:

Identification on the label/ Tradename:	Ketoprofen USP Micronized
Identification of the Product:	CAS#22071-15-4
Formula:	C16H14O3
CI No.:	Not Available
Synonyms:	Propionic acid, 2-(3-benzoylphenyl)-

Relevant identified uses of the substance and uses advised against:

Identified Uses:	Medicinal Products. For professional use only. Anti-inflammatory/analgesic.
Uses Advised Against:	Not information available

Name, address, and telephone number of the manufacturer:

Refer to Supplier

Name, address, and telephone number of the supplier:

Encore Scientific 801 West New Orleans Street Broken Arrow, OK, USA 74011
Supplier's Telephone #
800-454-2304 Monday to Friday 8:00 am to 6:00 pm (Central time)
24 Hr. Emergency Tel #
INFOTRAC: (800) 535-5053 (Within Continental US and Canada); (352)323-3500 (International)

Section 2 Hazards Identification

Classification according to Regulation

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Adverse physicochemical, human health and environmental effects

Acute toxicity - Oral	Category 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3

Label elements

Labelling according to Regulation



Signal Word: DANGER

Hazard statements

Toxic if swallowed

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Section 2 Hazards Identification (continued)

Causes skin irritation
 Causes serious eye irritation
 May cause respiratory irritation

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Wear protective gloves
 Wear eye/face protection

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water

If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF SWALLOWED: Rinse mouth.

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards

Other hazards not contributing to the classification

May be harmful if inhaled
 May be harmful if in contact with skin

Section 3 Composition/information on ingredients

Components	CAS No.	Weight %
Ketoprofen	22071-15-4	100

Section 4 First aid measures

General Advice: **Consult a physician. Show this safety data sheet to the doctor in attendance.**
Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or



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Section 4 First aid measures (continued)

ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention.

Ingestion: Toxic if swallowed. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately

Most important symptoms and effects, both acute and delayed

Symptoms/injuries: Toxic if swallowed. Causes serious eye irritation. Causes skin irritation. May cause gastritis. Dryness of mouth. Eructation (Belching). Thirst. May cause abdominal pain, nausea, vomiting, diarrhea. Flatulence. May cause constipation. May cause loss of appetite. Skin rash. May cause an allergic skin reaction. Fever. Ingestion of larger amounts may cause effects to the central nervous system (e.g. dizziness, headache). Somnolence. Insomnia. Confusion. Hallucinations. May cause personality and mood changes. Irregular heartbeat. Cardiac arrhythmias. Weak, rapid pulse or rapid heart rate (Tachycardia). It may affect the kidneys. Visual disturbances. May cause metabolic acidosis. May affect respiration. Dyspnea (Shortness of breath and difficulty breathing). May cause bleeding or ulceration from the stomach. Prolonged or repeated ingestion may affect behavior/central nervous system (symptoms similar to acute ingestion), metabolism (weight loss), and may cause kidney and liver damage. Metabolic acidosis/electrolyte abnormality in conjunction with acute renal failure may also occur.

Indication of any immediate medical attention and special treatment needed

Immediate medical attention is required. Treat symptomatically

Section 5 Fire-Fighting measures

Extinguishing media

Suitable extinguishing media: Dry chemical. Carbon dioxide (CO₂). Water spray, mist, or foam

Unsuitable extinguishing media: Water-jet may increase fire intensity

Special hazards arising from the substance or mixture

Fire hazard: Not considered flammable but may burn at high temperatures.

Explosion hazard: No unusual fire or explosion hazards noted

Reactivity: Carbon Oxides

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Section 5 Fire-Fighting measures (continued)

Advice for firefighters

Precautionary measures fire: Exercise caution when fighting any chemical fire.

Firefighting instructions: Dry chemical. Carbon dioxide (CO₂). Water spray, mist, or foam. Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Other information: Refer to Section 9 for flammability properties.

Section 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid dust formation. Ensure adequate ventilation. Remove all sources of ignition.

For non-emergency personnel

Protective equipment: Use appropriate personal protection equipment (PPE).

Emergency procedures: Evacuate unnecessary personnel.

For emergency responders

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Stop leak if safe to do so.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Prevent product from entering drains.

Methods and material for containment and cleaning up

For containment: Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up: Sweep up and shovel into suitable containers for disposal. Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Clean contaminated surface thoroughly.

Reference to other sections

See Heading 8. Exposure controls and personal protection.

Section 7 Handling and storage

Precautions for safe handling

Additional hazards when processed: Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials. Ensure adequate ventilation. Avoid dust formation.

Precautions for safe handling: Avoid creating or spreading dust.

Hygiene measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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Section 7 Handling and storage (continued)

Conditions for safe storage, including any incompatibilities

Technical measures: Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area.

Storage conditions: Keep container tightly closed in a dry and well-ventilated place.

Incompatible products: Oxidizing agents.

Specific end use(s)

Medicinal Products. For professional use only. Anti-inflammatory/analgesic.

Section 8 Exposure Controls/Personal Protection

Control parameters

Ingredients with limit values that require monitoring at the workplace: None

Exposure controls

Appropriate engineering controls: Ensure adequate ventilation, especially in confined areas. 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.

Individual protection measures, such as personal protective equipment

Personal protective equipment:

Safety glasses. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.

Materials for protective clothing:

Chemically resistant materials and fabrics.

Hand protection:

Protective gloves.

Eye protection:

Goggles or Safety glasses with side-shields

Skin and body protection:

Wear suitable protective clothing. Chemical resistant apron. Gloves. Long sleeved clothing.

Respiratory protection:

Effective dust mask. or. Wear respirator with dust filter. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds), inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent

Environmental exposure controls: Do not allow the product to be released into the environment.

Consumer exposure controls: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

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Section 9 Physical and chemical properties

Information on basic physical and chemical properties:

Physical state:	Solid
Color:	White. Off-white
Odor:	Odorless
Odor threshold:	No data available
pH:	No data available
Evaporation rate:	No data available
Melting point:	95°C/203°F
Freezing point:	No data available
Boiling point:	431.3°C (at 760mm Hg)
Flash point:	147°C/297°F
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	No data available
Vapor pressure:	3.72E-07 mmHg
Relative vapor density at 20 °C:	No data available
Relative density:	No data available
Solubility:	Very slightly soluble in water (51mg/l at 25°C) Easily soluble in diethyl ether Easily soluble in acetone Freely soluble in Ethanol Freely soluble in Chloroform Very soluble in Methanol Soluble in Dichloromethane Soluble in Benzene Soluble in Alkalis Sparingly soluble in Dimethylformamide Soluble in ethyl acetate
Partition coefficient: n-octanol/water:	3.12 log POW
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available.
Explosive limits:	No data available
Molecular/Formula weight:	254.28 g/mol
Formula:	C ₁₆ H ₁₄ O ₃

Other information

No additional information available

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Section 10 Stability and reactivity

Reactivity Reactive with oxidizing agents
Chemical stability Stable under recommended handling and storage conditions (see section 7).

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Conditions to avoid

Heat. Ignition sources. Incompatible materials.

Incompatible materials Strong oxidizers.
Hazardous decomposition products Carbon oxides (CO, CO₂). irritating fumes.

Other Information

Corrosivity: Non-corrosive in presence of glass.

Section 11 Toxicological information

Information on toxicological effects

Acute toxicity: Toxic if swallowed or in contact with skin

The following values are calculated based on chapter 3.1 of the GHS document ATEmix (oral) 62400 mg/kg

LD50/oral/rat = 62400 µg/kg Oral LD50 Rat

LD50/oral/mouse = 360 mg/kg oral LD50 mouse

LD50/dermal/rabbit = 2000 mg/kg dermal LD50 rabbit

LD50/dermal/rat = 62400 µg/kg Oral LD50

LC50/inhalation/rat = 1000 mg/L inhalation LC50 rat 8h

LC50/inhalation/mouse = No information available

Other LD50 or LC50 information = 1300 mg/kg oral LD50 guinea pig

Skin corrosion/irritation: Causes skin irritation. Skin contact may result in redness, pain, inflammation, itching, scaling, and/or blistering.

Serious eye damage/irritation: Causes severe eye irritation and possible burns. Symptoms may include stinging, tearing, redness.

Respiratory or skin sensitization: May cause irritation of the respiratory tract and mucous membranes irritation.

Germ cell mutagenicity: Not classified

Carcinogenicity: Not considered carcinogenic.

Reproductive toxicity: Not classified

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Section 11 Toxicological information (continued)

Specific target organ toxicity (single exposure): Respiratory system
Specific target organ toxicity (repeated exposure): Not classified
Aspiration hazard: Not classified

Section 12 Ecological information

Toxicity: No additional information available
Persistence and degradability: Biodegradable in water. Readily Biodegradable
Bioaccumulative potential: Non-bioaccumulative
Mobility in soil: Moderately mobile in soil
Results of PBT and vPvB assessment: No additional information available

Other adverse effects
Other information: Avoid release to the environment.

Section 13 Disposal considerations

Waste treatment methods

Waste disposal recommendations

Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Ecology - waste materials: Empty containers should be taken for local recycling, recovery or waste disposal Do not re-use empty containers Dispose of as unused product.

Section 14 Transport information

DOT
UN-No: UN2811
Proper Shipping Name: Toxic solids, organic, n.o.s. (ketoprofen)
Hazard Class: 6.1
Subsidiary Class No information available
Packing group: III
Emergency Response Guide Number 154
Marine Pollutant No data available
DOT RQ (lbs): No information available
Special Provisions IB8, IP3, T1, TP33
Symbol(s): [DOT]: (G) - Identifies proper shipping names for which one or more technical names of the hazardous material must be entered in parentheses, in association with the basic description.
Description: UN2811, Toxic solids, organic, n.o.s. (Ketoprofen), 6.1, III

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Section 14 Transport information (continued)

TDG (Canada)

UN-No: UN2811

Proper Shipping Name: Toxic solid, organic, n.o.s. Toxic solid, organic, n.o.s. Hazard Class: 6.1

Subsidiary Risk: No information available

Packing Group: III

Marine Pollutant No Information available

Description: UN2811, Toxic solid, organic, n.o.s. (Ketoprofen), 6.1, III

ADR

UN-No: UN2811

Proper Shipping Name: Toxic solid, organic, n.o.s. Toxic solid, organic, n.o.s. Hazard Class: 6.1

Packing Group: III

Subsidiary Risk: No information available

Special Provisions 274, 614

Description: UN2811, Toxic solid, organic, n.o.s. (Ketoprofen), 6.1, III

IMO / IMDG

UN-No: UN2811

Proper Shipping Name: Toxic solid, organic, n.o.s. Toxic solids, organic, n.o.s. (ketoprofen)

Hazard Class: 6.1

Subsidiary Risk: No information available

Packing Group: III

Marine Pollutant No information available

EMS: F-A

Special Provisions 223, 274

Description UN2811, Toxic solid, organic, n.o.s. (Ketoprofen), 6.1, III

RID

UN-No: UN2811

Proper Shipping Name: Toxic solid, organic, n.o.s. Toxic solid, organic, n.o.s. Hazard Class: 6.1

Subsidiary Risk: No information available

Packing Group: III

Special Provisions 274, 614

Description: UN2811, Toxic solid, organic, n.o.s. (Ketoprofen), 6.1, III

ICAO

UN-No: UN2811

Proper Shipping Name: Toxic solid, organic, n.o.s. Toxic solid, organic, n.o.s. Hazard Class: 6.1

Subsidiary Risk: No information available

Packing Group: III

Description: UN2811, Toxic solid, organic, n.o.s. (Ketoprofen), 6.1, III

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Section 14 Transport information (continued)

Special Provisions A3, A5

IATA
UN-No: UN2811

Proper Shipping Name: Toxic solid, organic, n.o.s. Toxic solid, organic, n.o.s. Hazard Class: 6.1

Subsidiary Risk: No information available

Packing Group: III

ERG Code: 6L

Special Provisions No information available

Description: UN2811, Toxic solid, organic, n.o.s. (Ketoprofen), 6.1, III

Section 15 Regulation information

Safety, health and environmental regulations/legislation specific for the substance or mixture
US federal regulations CERCLA/SARA Hazardous Substances - Not applicable.
 All components are on the U.S. EPA TSCA Inventory List.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories
Immediate Hazard - Yes

Delayed Hazard - No

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous Chemical No

Other federal regulations
Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

US state regulations California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia Australian	Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No

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Section 15 Regulation information (continued)

Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines (PICCS)	Philippine Inventory of Chemicals and Chemical Substances	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

***A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)**

Section 16 Other information

Further information: This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.