1. Product and Company Identification

**Product Code:** 70280  
**Product Name:** (±)-Ibuprofen  
**Manufacturer Information**  
**Company Name:** Cayman Chemical Company  
**Emergency Contact:** Cayman Chemical Company  (800)364-9897  
**Information:** Cayman Chemical Company  (734)971-3335  
**Chemical Family:** Inhibitors  
**CAS Number:** 15687-27-1  
**Synonyms:** (+/−)-α.-methyl-4-(2-methylpropyl)-benzeneacetic acid; Motrin

2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>Concentration</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ibuprofen</td>
<td>15687-27-1</td>
<td>100.0 %</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>RTECS #</th>
<th>OSHA STEL</th>
<th>OSHA CEIL</th>
<th>ACGIH STEL</th>
<th>ACGIH CEIL</th>
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</thead>
<tbody>
<tr>
<td>1. Ibuprofen</td>
<td>MU6640000</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
</tbody>
</table>

3. Hazards Identification

**Emergency Overview:** No data available.  
**Route(s) of Entry:** Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection.  
**Potential Health Effects (Acute and Chronic):** Material is irritating to the mucous membranes and upper respiratory tract.  
May be harmful by inhalation, ingestion, or skin absorption.  
May cause eye, skin, or respiratory system irritation.  
Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.  
The toxicological properties of this compound have not been fully evaluated.  
**LD 50 / LC 50:** Please refer to Section 11  
**Signs and Symptoms Of Exposure:** Clinical trials have shown the following possible adverse reactions: gastrointestinal disturbances including nausea, vomiting, cramps, diarrhea, constipation, bloating, central nervous system effects which include dizziness, headache, depression, insomnia, aseptic meningitis, somnolence, dermatological effects of maculopapular and vesiculobullous eruptions, urticaria, alopecia, erythema multiforme, stevens-johnson syndrome, hematologic effects of neutropenia, aplastic and hemolytic anemia, thrombocytopenia, decreases in hemoglobin and hematocrit. Irritating to the skin, eyes, nose, throat, and respiratory tract.

4. First Aid Measures

**Emergency and First Aid Procedures:** If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.  
If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.  
In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.  
In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
5. Fire Fighting Measures

Flash Pt: No data.
Explosive Limits: LEL: No data.  UEL: No data.
Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
Flammable Properties and Hazards: Emits toxic fumes under fire conditions.
Extinguishing Media: Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.
Unsuitable Extinguishing Media: No data available.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Avoid raising dust. After removal, ventilate contaminated area and flush thoroughly with water.

7. Handling and Storage

Hazard Label Information: Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.
Precautions To Be Taken in Handling: Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not reuse this container. Pregnant females should avoid exposure to this compound. Use with adequate ventilation. Wash thoroughly after handling.
Precautions To Be Taken in Storing: Store at correct temperature.

8. Exposure Controls/Personal Protection

Protective Equipment Summary - Hazard Label Information: Eye wash station in work area  Lab coat  Latex disposable gloves  Safety glasses  Safety shower in work area  Vent Hood
Respiratory Equipment (Specify Type): No data available.
Eye Protection: Safety glasses
Protective Gloves: Latex disposable gloves
Other Protective Clothing: Lab coat
Engineering Controls (Ventilation etc.): Good general ventilation should be sufficient to control airborne levels.
Work/Hygienic/Maintenance Practices: Do not take internally. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Wash thoroughly after handling.

9. Physical and Chemical Properties

Physical States: [ ] Gas  [ ] Liquid  [ X ] Solid
Melting Point: 76.00 C - 77.00 C
Boiling Point: No data.
Autoignition Pt: No data.
Flash Pt: No data.
Explosive Limits: LEL: No data.  UEL: No data.
Specific Gravity (Water = 1): No data.
Bulk density: No data.
Vapor Pressure (vs. Air or mm Hg): No data.
Vapor Density (vs. Air = 1): No data.
Evaporation Rate (vs Butyl Acetate=1): No data.
Solubility in Water: >2 mg/ml* at 25.0 C
### Solubility Notes
*PBS pH 7.2, sol. in EtOH, DMSO, & DMF

### Percent Volatile
No data.

### Heat Value
No data.

### Particle Size
No data.

### Corrosion Rate
No data.

### Formula
C13H18O2

### Molecular Weight
206.30

### pH
No data.

### Appearance and Odor
A crystalline solid.

### 10. Stability and Reactivity

#### Stability
Stable [X]  Unstable [ ]

#### Conditions To Avoid - Instability
No data available.

#### Incompatibility - Materials To Avoid
No data available.

#### Hazardous Decomposition Or Byproducts
- Carbon dioxide
- Carbon monoxide

#### Hazardous Polymerization
Will not occur [ X ]  Will occur [ ]

#### Conditions To Avoid - Hazardous Polymerization
No data available.

### 11. Toxicological Information

The toxicological effects of this compound have not been thoroughly studied.

#### Toxicity Data
- Oral (rat) LD50: 636 mg/kg

#### Carcinogenicity/Other Information
- No data available.
- NTP? No
- IARC Monographs? No
- OSHA Regulated? No

### 12. Ecological Information

Runoff from fire control or dilution water may cause pollution.

### 13. Disposal Considerations

Waste Disposal Method:
Dispose in accordance with local, state and federal regulations.

### 14. Transport Information

**LAND TRANSPORT (US DOT)**

- **DOT Proper Shipping Name:**
  This substance is considered to be non-hazardous for transport.
- **Additional Transport Information:**
  Transport in accordance with local, state, and federal regulations.

### 15. Regulatory Information

#### US EPA SARA Title III

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>Sec.302 (EHS)</th>
<th>Sec.304 RQ</th>
<th>Sec.313 (TRI)</th>
<th>Sec.110</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ibuprofen</td>
<td>15687-27-1</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**US EPA CAA, CWA, TSCA**

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>EPA CAA</th>
<th>EPA CWA NPDES</th>
<th>EPA TSCA</th>
<th>CA PROP 65</th>
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<tr>
<td>Ibuprofen</td>
<td>15687-27-1</td>
<td>No</td>
<td>Inventory</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Regulatory Information:**
Regulatory information on this product is not available.

### 16. Other Information

For research use only, not for human or veterinary clinical use.

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