Section 1. Product and Company Identification

Product Name: Piperlongumine
Product ID: P3563
Chemical Name (Synonyms):
Supplier: 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: Not a dangerous substance according to GHS

GHS Label elements including precautionary statements

Pictogram

Signal word: None
Hazard and precautionary statements: None

HMIS Classification
Health hazard: 0
Flammability: 0
Physical hazards: 0

NFPA Rating
Health Hazard: 0
Fire: 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. May cause skin irritation.
Eyes: May cause eye irritation.
Section 3. Composition/Information on Ingredients

Substances

- Formula: \( \text{C}_{16}\text{H}_{19}\text{NO}_{3} \)
- Formula Wt.: 273.33
- CAS No.: 5950-12-9

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

Remove contact lenses. Flush with water for at least 15 minutes and seek medical attention immediately.

Skin Contact

Wash with soap and water for 15 minutes and seek medical attention immediately. Wash contaminated clothing before use.

Inhalation

Remove from exposure and provide respiration support if necessary.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting unless directed to do so by medical personal.

Section 5. Firefighting Measures

Flash Point

Not available.

Extinguishing Media

Water spray, dry chemical powder, carbon dioxide, polymer foam.

Firefighting Procedures

Wear self-contained breathing apparatus and protective clothing.

Unusual Fire Hazards

May emit toxic fumes under fire conditions.

Section 6. Accidental Release Measures

Personal Precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

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

Use appropriate tools to collect material and dispose of in waste container. Avoid raising dust. Ventilate the area and wash spill site after material has been removed.

Section 7. Handling and Storage

Handling

Wear gloves, goggles, and lab coat when handling this material. Use in a well ventilated area. Use only in a chemical fume hood. Wash thoroughly after handling material.

Storage Conditions

Store in a cool, dry place in a tightly closed container.

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide, Nitrogen oxides.

Other Remarks

None
Section 8. Exposure Controls/Personal Protection

**Personal protective equipment** Contains no substances with occupational exposure limit values.

**Respiratory Protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand 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.

**Eye 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 and Body Protection**
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene Measures**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Color</th>
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<tbody>
<tr>
<td>Solid</td>
<td>White to off white</td>
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<table>
<thead>
<tr>
<th>Boiling Point</th>
<th>Volatility</th>
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<table>
<thead>
<tr>
<th>Melting Point</th>
<th>Density</th>
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<th>pH</th>
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<thead>
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<th>Ignition temperature</th>
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<td>Not available.</td>
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</table>

<table>
<thead>
<tr>
<th>Lower explosion limit</th>
<th>Autoignition temperature</th>
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<tbody>
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<td>Not available.</td>
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<table>
<thead>
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<th>Upper explosion limit</th>
<th>Vapor pressure</th>
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<thead>
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<table>
<thead>
<tr>
<th>Partition coefficient: n-octanol/water</th>
<th>Odor Threshold</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Relative vapor density</th>
<th>Evaporation rate</th>
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<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
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</tbody>
</table>

Section 10. Stability and Reactivity

**Stability**
Stable under recommended storage conditions.

**Materials To Avoid**
Keep away from heat and strong oxidizing agents.

**Hazardous Decomposition Products**
Carbon monoxide, Carbon dioxide, Nitrogen oxides.
Section 11. Toxicological Information

- **Oral LD50**: Not available.
- **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.
- **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.
- **Reproductive Toxicity**: Not available.
- **Teratogenicity**: Not available.
- **Specific organ toxicity single exposure (GHS)**: Not available.
- **Specific organ toxicity repeated exposure (GHS)**: Not available.
- **Aspiration Hazard**: Not available.
- **Synergistic effects**: Not available.
- **Additional Information**: Not available.
- **Signs and symptoms of exposure**: Not available.
- **Possibility of hazardous reactions**: Not available.
- **Conditions to avoid**: Not available.

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.
Ingestion: May be harmful if swallowed.

Section 12. Ecological Information

- **Toxicity**: Not available.
- **Mobility in soil**: Not available.
- **PBT and vPvB assessment**: Not available.
Section 13. Disposal Considerations

Waste Disposal
Dispose of material according to all federal, state and local regulations.

Section 14. Transport Information

DOT (US) Not dangerous goods
IATA Not dangerous goods
IMDG Not dangerous goods

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 II, 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 No SARA Hazards

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components Piperlonguminine CAS: 5950-12-9
New Jersey Right To Know Components Piperlonguminine CAS: 5950-12-9
California Prop 65 Components This product does not contain any chemicals known to 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.