Section 1 - Chemical Product and Company Identification

MSDS Name: Piperonylic acid
Catalog Numbers: 242538
Synonyms: 1,3-Benzodioxole-5-carboxylic acid

Company Identification:
J&K SCIENTIFIC LTD.
18AED, Building-D, Majestic Garden 6 Bei-Si-Huan-Zhong Road Beijing China 100029

For information, call:
North America: (435)-753-1901
China: (86 10) 82848833

For emergencies, call:
North America: (800) 424-9300

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>%</th>
<th>EINECS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>94-53-1</td>
<td>Piperonylic acid</td>
<td>99%</td>
<td>202-342-8</td>
</tr>
</tbody>
</table>

Haz Symbols: Xn

Risk Phrases: 22 37/38 41

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful if swallowed. Irritating to respiratory system and skin. Risk of serious damage to eyes.

POTENTIAL HEALTH EFFECTS

Eye: Causes eye irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Ingestion: Harmful if swallowed.
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Chronic
MSDS for (Piperonylic acid)

**** MATERIAL SAFETY DATA SHEET ****

Section 4 - First aid Measures

Eyes Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Wash off with soap and plenty of water. Consult a physician.

Ingestion Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Inhalation If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

Notes to Physician

Section 5 - Fire Fighting Measures

General Information Wear self contained breathing apparatus for fire fighting if necessary.

Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Section 6 - Accidental Release Measures

General Information Use proper personal protective equipment as indicated in section 8.

Spills/Leaks Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

Section 7 - Handling and Storage

Handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

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

Section 8 - Exposure Controls, Personal Protection

Engineering Controls Not available.

PERSONAL PROTECTIVE EQUIPMENT
**** MATERIAL SAFETY DATA SHEET ****

**MSDS for (Piperonylic acid)**

Eyes

Chemical safety goggles.

Skin

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Clothing

Wear appropriate protective clothing to prevent skin exposure.

Respirators

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9 - Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Off-white</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing/Melting Point</td>
<td>229-231°C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosion Limits, lower</td>
<td>Not available</td>
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<tr>
<td>Explosion Limits, upper</td>
<td>Not available</td>
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<tr>
<td>Decomposition Temperature</td>
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<tr>
<td>Solubility in water</td>
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<tr>
<td>Specific Gravity/Density</td>
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<tr>
<td>Molecular Formula</td>
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<tr>
<td>Molecular Weight</td>
<td>166.13</td>
</tr>
</tbody>
</table>

Section 10 - Stability and Reactivity

<table>
<thead>
<tr>
<th>Chemical Stability</th>
<th>Stable under recommended storage conditions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions to Avoid</td>
<td>Incompatible materials.</td>
</tr>
<tr>
<td>Incompatibilities with Other Materials</td>
<td>Strong oxidizing agents.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>Hazardous decomposition products</td>
</tr>
<tr>
<td></td>
<td>Hazardous decomposition products formed under fire conditions. - Carbon oxides.</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Will not occur.</td>
</tr>
</tbody>
</table>
**** MATERIAL SAFETY DATA SHEET ****

MSDS for (Piperonylic acid)

Section 11 - Toxicological Information

RTECS# CAS#94-53-1: DF4912765.
LD50/LC50 Not available.
Carcinogenicity Piperonylic acid- Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other

Section 12 - Ecological Information

Not available.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th>IATA</th>
<th>IMO</th>
<th>RID/ADR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Section 15 - Regulatory Information

European/International Regulations
Hazard Symbols Xn
Risk Phrases
  R 22:Harmful if swallowed.
  R 37/38:Irritating to respiratory system and skin.
  R 41:Risk of serious damage to eyes.
Safety Phrases
  S 26:In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  S 36/37/39:Wear suitable protective clothing, gloves and eye/face protection.
WGK (Water Danger/Protection)
  CAS#94-53-1: 3.
MSDS for (Piperonylic acid)

**** MATERIAL SAFETY DATA SHEET ****

Section 16 - Additional Information

MSDS Creation Date  2010-1-6
Revision #1 Date    Original

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