Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Common Name/Trade Name</th>
<th>Phenelzine Sulfate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog Number(s)</td>
<td>P3032</td>
</tr>
<tr>
<td>CAS#</td>
<td>156-51-4</td>
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<td>RTECS</td>
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<tr>
<td>TSCA</td>
<td>TSCA 8(b) inventory: No products were found.</td>
</tr>
<tr>
<td>CI#</td>
<td>Not available.</td>
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</tbody>
</table>

Manufacturer

SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

Commercial Name(s)

Alacine; Alazin; Alazine; Estinerval; Felazine; Fenelzin; Kalgan; Nardelzine; Nardil; Phelazin; Phenline

Synonym

1-Hydr azino-2-phenylethane hydrogen sulphate;
2-Phenethylhydrazine dihydrogen sulphate;
2-Phenethylhydrazine hydrogen sulphate;
2-Phenethylhydrazine sulphate;
beta-Phenethylhydrazine dihydrogen sulphate;
beta-Phenethylhydrazine hydrogen sulphate;
beta-Phenethylhydrazine sulphate;
Phenelzine acid sulfate; Phenelzinebisulphate; Phenelzine sulphate; Phenethylhydrazine sulphate; Phenethylhydrazine dihydrogen sulphate; Phenethylhydrazine sulphate.

Chemical Name

Hydrazine, phenethyl-, sulfate (1:1)

Chemical Family

Not available.

Chemical Formula

C₈H₁₂N₂H₂SO₄

Supplier

SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
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</thead>
<tbody>
<tr>
<td>1) Phenelzine Sulfate</td>
<td>156-51-4</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
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</tbody>
</table>

Toxicological Data on Ingredients

Phenelzine Sulfate:

ORAL (LD₅₀):

Acute: 210 mg/kg [Rat]. 156 mg/kg [Mouse].

continued on next page
Section 3. Hazards Identification

Potential Acute Health Effects
Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

Potential Chronic Health Effects
CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC.
MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
Repeated or prolonged exposure is not known to aggravate medical condition.

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 if irritation occurs.

Skin Contact
Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

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, CO2), nitrogen oxides (NO, NO2...), sulfur oxides (SO2, SO3...).

Fire Hazards in Presence of Various Substances
Slightly flammable to flammable in presence of heat.

Explosion Hazards in Presence of Various Substances
Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.

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
Not available.
Section 6. Accidental Release Measures

Small Spill
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill
Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

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. If ingested, seek medical advice immediately and show the container or the label. 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
Safety glasses. 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.

Molecular Weight
234.27 g/mole

pH (1% soln/water)
Not available.

Boiling Point
Not available.

Melting Point
Not available.

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
Not available.

Solubility
Not available.

Odor
Not available.

Taste
Not available.

Color
Not available.

Continued on Next Page
### Section 10. Stability and Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>The product is stable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instability Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conditions of Instability</td>
<td>Excess heat, incompatible materials.</td>
</tr>
<tr>
<td>Incompatibility with various substances</td>
<td>Reactive with oxidizing agents.</td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

#### 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): 156 mg/kg [Mouse].

#### Chronic Effects on Humans
- CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC.
- MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.

#### Other Toxic Effects on Humans
- Hazardous in case of ingestion.
- Slightly hazardous in case of skin contact (irritant), of inhalation.

#### Special Remarks on Toxicity to Animals
- Not available.

#### Special Remarks on Chronic Effects on Humans
- May cause cancer based on animal test data.
- May cause adverse reproductive effects 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 affect the liver (hepatitis, fatty liver degeneration), behavior/central system/peripheral nervous system (change in motor activity, coma, paresthesia, sensory change involving peripheral nerve), respiration (acute pulmonary edema), blood.
- Chronic Potential Health Effects:
  - Ingestion: Prolonged or repeated ingestion may have similar effects as 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.

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### 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

**DOT Classification**

Not a DOT controlled material (United States).

**Identification**

Not applicable.

**Special Provisions for Transport**

Not applicable.

**DOT (Pictograms)**

<table>
<thead>
<tr>
<th>DOT (Pictograms)</th>
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<tbody>
<tr>
<td>[Image of no hazardous symbol]</td>
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</table>

### Section 15. Other Regulatory Information and Pictograms

**Federal and State Regulations**

California Director's List of Hazardous Substances: Phenelzine Sulfate

**California Proposition 65 Warnings**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

**Other Regulations**


EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 205-856-0).

Canada: Not listed on Canadian Domestic Substance List (DSL) or Canadian Non-Domestic Substance List (NDSL)

China: Not listed on National Inventory.

Japan: Not listed on National Inventory (ENCS).

Korea: Not listed on National Inventory (KECI).

Philippines: Not listed on National Inventory (PICCS).

Australia: Listed on AICS.

**Other Classifications**

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

DSCL (EEC) R22- Harmful if swallowed.

S46- If swallowed, seek medical advice immediately and show this container or label.

**HMIS (U.S.A.)**

<table>
<thead>
<tr>
<th>HMIS (U.S.A.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
</tr>
<tr>
<td>Fire Hazard</td>
</tr>
<tr>
<td>Reactivity</td>
</tr>
<tr>
<td>Personal Protection</td>
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**National Fire Protection Association (U.S.A.)**

<table>
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<th>National Fire Protection Association (U.S.A.)</th>
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<tbody>
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<td>Health</td>
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<td>Reactivity</td>
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</table>

**WHMIS (Canada) (Pictograms)**

| Image of skull and crossbones |

**DSCL (Europe) (Pictograms)**

| Image of crossed-out symbol |

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*Continued on Next Page*
Phenelzine Sulfate

Protective Equipment

Gloves.

Lab coat.

Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Safety glasses.

Section 16. Other Information

MSDS Code P3049

References Not available.

Other Special Considerations Uses: Drug. A monoamine oxidase (MAO) inhibitor.


Verified by Sonia Owen.


CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user’s responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.