**Primaquine Phosphate**

**Chemical Name:** Quinoline, 8-((4-amino-1-methylbutyl)amino)-6-methoxyquinoline diphosphate

**Synonym:** Primaquine diphosphate; 1,4-Pentanediaine, N(sup 4)-(6-methoxy-8-quinolinyl), phosphate (1:2); 8-((4-Amino-1-methylbutyl)amino)-6-methoxyquinoline diphosphate

**Chemical Formula:** C15-H21-N3-O.2H3PO4

**CAS #:** 63-45-6

**RTECS:** VA9660000

**TSCA:** TSCA 8(b) inventory: No products were found.

**Manufacturer:** SPECTRUM LABORATORY PRODUCTS INC.

14422 S. SAN PEDRO STREET
GARDENA, CA 90248

**Supplier:** SPECTRUM LABORATORY PRODUCTS INC.

14422 S. SAN PEDRO STREET
GARDENA, CA 90248

**Section 1. Chemical Product and Company Identification**

**Common Name/Trade Name:** Primaquine Phosphate

**Catalog Number(s):** P1269

**CAS:** 63-45-6

**RTECS:** VA9660000

**TSCA:** TSCA 8(b) inventory: No products were found.

**Manufacturer:** SPECTRUM LABORATORY PRODUCTS INC.

14422 S. SAN PEDRO STREET
GARDENA, CA 90248

**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>
</tr>
</thead>
<tbody>
<tr>
<td>1) Primaquine Phosphate</td>
<td>63-45-6</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

**Toxicological Data on Ingredients**

Primaquine Phosphate:

ORAL (LD50): Acute: 177 mg/kg [Rat]. 68 mg/kg [Mouse].

**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. Severe over-exposure can result in death.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
### Section 4. First Aid Measures

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye Contact</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Skin Contact</strong></td>
<td>Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.</td>
</tr>
<tr>
<td><strong>Serious Skin Contact</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.</td>
</tr>
<tr>
<td><strong>Serious Inhalation</strong></td>
<td>Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.</td>
</tr>
<tr>
<td><strong>Serious Ingestion</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### Section 5. Fire and Explosion Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flammability of the Product</strong></td>
<td>May be combustible at high temperature.</td>
</tr>
<tr>
<td><strong>Auto-Ignition Temperature</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flash Points</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammable Limits</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Products of Combustion</strong></td>
<td>These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...), phosphates.</td>
</tr>
<tr>
<td><strong>Fire Hazards in Presence of Various Substances</strong></td>
<td>Slightly flammable to flammable in presence of heat.</td>
</tr>
<tr>
<td><strong>Fire Fighting Media and Instructions</strong></td>
<td>SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.</td>
</tr>
<tr>
<td><strong>Special Remarks on Fire Hazards</strong></td>
<td>As with most organic solids, fire is possible at elevated temperatures</td>
</tr>
<tr>
<td><strong>Special Remarks on Explosion Hazards</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### Section 6. Accidental Release Measures

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Small Spill</strong></td>
<td>Use appropriate tools to put the spilled solid in a convenient waste disposal container.</td>
</tr>
<tr>
<td><strong>Large Spill</strong></td>
<td>Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.</td>
</tr>
</tbody>
</table>

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*Continued on Next Page*
Primaquine Phosphate

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. Sensitive to light. Store in light-resistant containers.

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. (Powdered solid.)

Molecular Weight
455.34 g/mole

pH (1% soln/water)
Not available.

Boiling Point
Not available.

Melting Point
204°C (399.2°F)

Critical Temperature
Not available.

Specific Gravity
Not available.

Vapor Pressure
Not available.

Vapor Density
Not applicable.

Volutility
Not available.

Odor Threshold
Not available.

Water/Oil Dist. Coeff.
Not available.

Ionicity (in Water)
Not available.

Dispersion Properties
Not available.

Solubility
Not available.

Section 10. Stability and Reactivity Data

Stability
The product is stable.

Instability Temperature
Not available.

Conditions of Instability
Excess heat, incompatible materials

Incompatibility with various substances
Reactive with oxidizing agents.

Corrosivity
Not available.

Continued on Next Page
**Section 11. Toxicological Information**

**Routes of Entry**
- Inhalation
- Ingestion

**Toxicity to Animals**
- Acute oral toxicity (LD50): 68 mg/kg [Mouse]

**Chronic Effects on Humans**
- 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 affect genetic material (mutagenic).
- May cause adverse reproductive effects and birth defects (teratogenic).

**Special Remarks on other Toxic Effects on Humans**
- Acute Potential Health Effects:
  - Skin: May cause skin irritation.
  - Eyes: May cause eye irritation.
  - Inhalation: Dust may cause respiratory tract irritation.
  - Ingestion: Harmful if swallowed. Can cause Stomach upset, abdominal cramps, nausea, vomiting, burning gastric distress, loss of appetite, muscle weakness, back or leg pain, cyanosis (bluish fingernails, lips or skin), difficulty breathing, shortness of breath, pale skin, fever, sore throat. Can affect behavior/central nervous system (dizziness, lightheadness, unusual tiredness), cardiovascular system, blood (leukocytosis, leukopenia, anemia, methemoglobinemia). It may also affect the liver, kidneys (dark urine) and may cause changes in vision, hearing trouble, ringing in the ears.
  - Note: Methemoglobinemia is an increase in the methemoglobin, a form of hemoglobin that cannot carry oxygen. This results in deficient oxygen carrying capacity of the blood causing cyanosis.
- Chronic Potential Health Effects:
  - Ingestion: Prolonged or repeated ingestion may affect the liver, urinary system.

**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.

**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

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>CLASS 6.1: Poisonous material.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification</td>
<td>UNNA: 2811 : Toxic solid, organic, n.o.s(Primaquine phosphate)  PG: III</td>
</tr>
<tr>
<td>Special Provisions for Transport</td>
<td>Not available.</td>
</tr>
<tr>
<td>DOT (Pictograms)</td>
<td><img src="https://via.placeholder.com/150" alt="POISON" /></td>
</tr>
</tbody>
</table>

### Section 15. Other Regulatory Information and Pictograms

<table>
<thead>
<tr>
<th>Federal and State Regulations</th>
<th>No products were found.</th>
</tr>
</thead>
<tbody>
<tr>
<td>California Proposition 65 Warnings</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 200-560-8).</td>
</tr>
<tr>
<td></td>
<td>Canada: Not listed on Canadian Domestic Substance List (DSL) or Canadian Non-Domestic Substances List (NDSL)</td>
</tr>
<tr>
<td></td>
<td>China: Not listed on National Inventory.</td>
</tr>
<tr>
<td></td>
<td>Japan: Not listed on National Inventory (ENCS).</td>
</tr>
<tr>
<td></td>
<td>Korea: Not listed on National Inventory (KECI).</td>
</tr>
<tr>
<td></td>
<td>Philippines: Not listed on National Inventory (PICCS).</td>
</tr>
<tr>
<td></td>
<td>Australia: Listed on AICS.</td>
</tr>
<tr>
<td>Other Classifications</td>
<td>WHMIS (Canada) CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).</td>
</tr>
<tr>
<td></td>
<td>DSCL (EEC) R25- Toxic if swallowed.</td>
</tr>
<tr>
<td></td>
<td>S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).</td>
</tr>
</tbody>
</table>

### HMIS (U.S.A.)

| Health Hazard | 2 |
| Fire Hazard   | 1 |
| Reactivity    | 0 |
| Personal Protection | E |

### National Fire Protection Association (U.S.A.)

| Health | 2 |
| Reactivity | 0 |
| Specific hazard | |

### WHMIS (Canada) (Pictograms)

| ![Skull and Crossbones](https://via.placeholder.com/150) |

### DSCL (Europe) (Pictograms)

| ![Explosion](https://via.placeholder.com/150) |
### 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**

<table>
<thead>
<tr>
<th>MSDS Code</th>
<th>P4636</th>
</tr>
</thead>
</table>

- **References**: Not available.
- **Other Special Considerations**: Major Uses: Medication (antimalarial agent)

**Validated by Sonia Owen on 10/31/2007.**

**Verified by Sonia Owen.**

**Printed 1/21/2008.**

**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.