Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Common Name/Trade Name: Phenylmercuric nitrate

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

Commercial Name(s): Mersolite 7, Phermernite, Phenalco, Phenitol

Synonym: Mercuriphenyl nitrate; Merphenyl nitrate; Phenylmercury nitrate; nitric acid, phenylmercury salt; Phenmerzyl nitrate

Chemical Name: Mercury, Nitratophenyl-

Chemical Family: Not available.

Chemical Formula: C6H5HgNO3

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

Catalog Number(s): PH155, PH156

CAS#: 55-68-5

RTECS: OW8400000

TSCA: TSCA 8(b) inventory: Phenylmercuric nitrate

CI#: Not available.

IN CASE OF EMERGENCY
CHEMTREC (24hr) 800-424-9300
CALL (310) 516-8000

Section 2. Composition and Information on Ingredients

Exposure Limits

<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) Phenylmercuric nitrate</td>
<td>55-68-5</td>
<td>0.1</td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients

Phenylmercuric nitrate
LD50: Not available.
LC50: Not available.

Section 3. Hazards Identification

Potential Acute Health Effects

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (permeator). Corrosive to eyes and skin. The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Continued on Next Page
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 immediately.

**Skin Contact**
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Serious Skin Contact**
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

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

**Serious Inhalation**
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. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

**Ingestion**
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.

**Serious Ingestion**
Not available.

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...). Some metallic oxides.

**Fire Hazards in Presence of Various Substances**
Slightly flammable to flammable in presence of heat. Non-flammable in presence of open flames and sparks, of shocks.

**Explosion Hazards in Presence of Various Substances**

**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**
When heated to decomposition it emits toxic fumes (e.g. Mercury vapor). Non-combustible. When heated, the material itself does not burn or burns with difficulty.

**Special Remarks on Explosion Hazards**
Containers may explode when heated.

Continued on Next Page
### Section 6. Accidental Release Measures

**Small Spill**
Use appropriate tools to put the spilled solid in a convenient waste disposal container.

**Large Spill**
Corrosive solid. 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. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

### Section 7. Handling and Storage

**Precautions**
Keep locked up. Keep container dry. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing 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**
Splash goggles. Synthetic apron. Vapor and 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. Vapor and 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**
TWA: 0.1 (mg(Hg)/m³) from ACGIH (TLV) [United States] SKIN
TWA: 0.01 (mg(Hg)/m³) from OSHA (PEL) [United States] Inhalation
TWA: 0.1 (mg(Hg)/m³) from NIOSH [United States] SKIN
TWA: 0.1 (mg(Hg)/m³) from ACGIH (TLV) [United States] Inhalation

Consult local authorities for acceptable exposure limits.

### Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical state and appearance</th>
<th>Odor</th>
<th>Molecular Weight</th>
<th>Taste</th>
<th>pH (1% soln/water)</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid. (Crystals solid.)</td>
<td>Not available.</td>
<td>339.71 g/mole</td>
<td>Not available.</td>
<td>Not applicable.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

|---------------|---------------|----------------------|-----------------|---------------|--------------|------------|----------------|-----------------------|---------------------|---------------------|-----------|

*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>Not available.</td>
</tr>
<tr>
<td>Incompatibility with various substances</td>
<td>Reactive with reducing agents.</td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Non-corrosive in presence of glass.</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
Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

#### Toxicity to Animals
LD50: Not available. LC50: Not available.

#### Chronic Effects on Humans
May cause damage to the following organs: kidneys, liver, skin, eyes, central nervous system (CNS).

#### Other Toxic Effects on Humans
Very hazardous in case of skin contact (irritant), of ingestion,. Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive), of inhalation (lung corrosive).

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

#### Special Remarks on Chronic Effects on Humans
This product is a Mercury compound. Mercury may cause adverse reproductive effects and birth defects (teratogenic). Mercury may cause cancer. Mercury may affect genetic material (mutagenic)

#### Special Remarks on other Toxic Effects on Humans
Acute Potential Health Effects:

- **Skin:** Causes skin irritation with possible burns. It can be absorbed through the skin.
- **Eyes:** Causes eye irritation. Exposure to vapor may cause conjunctivitis, ulceration of the cornea, discoloration of the front surface of the lens, and possible burns.
- **Inhalation:** Inhalation of high concentrations of vapor or mist can cause respiratory tract irritation and possible chemical burns to the respiratory tract, corrosive bronchitis, interstitial pneumonia, severe pulmonary irritation, lung lesions, and death from respiratory insufficiency. Mercury vapor or mist can be absorbed by the respiratory tract. Acute mercury intoxication is rare, but can occur after inhalation of large amounts. Vapor inhalation is the is the most likely route of exposure. It may cause flu-like "fume metal fever" with chills, malaise, respiratory symptoms (chest tightness, difficulty breathing, coughing), fever, chills, gastrointestinal symptoms (dry mouth, nausea, vomiting, diarrhea, abdominal pain, hypermotility, stomatitis, salivation, metallic taste), and gingivitis. It may affect behavior/central nervous system/peripheral nervous system (depression, anxiety, decreased strength, muscle aches/weakness, lethargy, fatigue, headache, insomnia, dizziness, clumsiness or muscle incoordination, short-term memory loss, slurred speech, tremor, irritability, emotional instability, apathy, hallucinations, mania, xenophobia, sensitivity, impaired concentration, convulsions, stupor, coma), liver, metabolism (anorexia), cardiovascular system (hypertension, tachycardia), urinary system (kidney damage, renal impairment), and blood (increased white blood cell count, thrombocytopenia, anemia). Acute Mercury poisoning can resemble Pheochromocytoma.

- **Ingestion:** May cause severe gastrointestinal tract irritation with abdominal pain, thirst, salivation, metallic taste, nausea, vomiting, poor appetite, and diarrhea. May affect behavior/central nervous system, peripheral nervous system with symptoms similar to inhalation. Absorbed Mercury may affect liver, and kidneys (tissue damage)

#### Chronic Potential Health Effects:

- **Skin:** Prolonged or repeated skin contact may cause dermatitis, and it can be absorbed through the skin and affect behavior (symptoms similar to inhalation and ingestion), and hearing.

- **Inhalation:** Effects may be delayed. It may cause permanent central nervous system damage and peripheral neuropathy (symptoms similar to acute exposure), liver and kidney damage, and may affect the brain.

- **Eyes:** Prolonged or repeated eye exposure to mercury vapors may result in Mercurialentis, a brownish discoloration of the lens, band keratopathy, corneal opacity and impaired vision, photophobia, color vision disturbance.
**Section 12. Ecological Information**

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD5 and COD</td>
<td>Not available.</td>
</tr>
<tr>
<td>Products of Biodegradation</td>
<td>Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.</td>
</tr>
<tr>
<td>Toxicity of the Products of Biodegradation</td>
<td>The products of degradation are less toxic than the product itself.</td>
</tr>
<tr>
<td>Special Remarks on the Products of Biodegradation</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**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 | CLASS 6.1: Poisonous material. |
| Identification     | : Phenylmercuric nitrate  UNNA: 1895  PG: II |
| Special Provisions for Transport | Marine Pollutant |
| DOT (Pictograms)   |  |

**Section 15. Other Regulatory Information and Pictograms**

| Federal and State Regulations | California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Phenylmercuric nitrate 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: Phenylmercuric nitrate Pennsylvania RTK: Phenylmercuric nitrate Massachusetts RTK: Phenylmercuric nitrate New Jersey: Phenylmercuric nitrate TSCA 8(b) inventory: Phenylmercuric nitrate SARA 313 toxic chemical notification and release reporting: Phenylmercuric nitrate CERCLA: Hazardous substances.: Phenylmercuric nitrate |
| California Proposition 65 Warnings | 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: Phenylmercuric nitrate |
| Other Classifications | WHMIS (Canada): CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC). DSCL (EEC): R24/25- Toxic in contact with skin and if swallowed. R34- Causes burns. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S23- Do not breathe gas/fumes/vapour/spray [***] S24/25- Avoid contact with skin and eyes. S37- Wear suitable gloves. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S60- This material and its container must be disposed of as hazardous waste. S61- Avoid release to the environment. Refer |
Phenylmercuric nitrate

<table>
<thead>
<tr>
<th>HMIS (U.S.A.)</th>
<th>National Fire Protection Association (U.S.A.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>3</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>1</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>1</td>
</tr>
</tbody>
</table>

**WHMIS (Canada)**

- **Health:**
- **Flammability:**
- **Reactivity:**
- **Specific hazard:**

![Pictogram](image)

**DSCL (Europe)**

- **Health:**
- **Flammability:**
- **Reactivity:**
- **Specific hazard:**

![Pictogram](image)

**TDG (Canada)**

- **Health:**
- **Flammability:**
- **Reactivity:**
- **Specific hazard:**

![Pictogram](image)

**ADR (Europe)**

- **Health:**
- **Flammability:**
- **Reactivity:**
- **Specific hazard:**

![Pictogram](image)

**Protective Equipment**

- Gloves.
- Synthetic apron.
- Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
- Splash goggles.

Continued on Next Page
### Section 16. Other Information

<table>
<thead>
<tr>
<th>MSDS Code</th>
<th>P3620</th>
</tr>
</thead>
<tbody>
<tr>
<td>References</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other Special Considerations</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Validated by Sonia Owen on 12/14/2012.**  
**Verified by Sonia Owen.**  
**Printed 5/7/2013.**

**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.