Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
<th>Personal Protective Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Health Hazard: 2</td>
<td>Fire Hazard: 1</td>
<td>Reactivity: 0</td>
</tr>
</tbody>
</table>

Common Name/Trade Name: Chlorpromazine

Catalog Number(s): C1662

CAS#: 50-53-3

RTECS: Not available.

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

CI#: Not available.

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

Commercial Name(s): Thorazine; Aminizin

Synonym: Not available.

Chemical Name: Chlorpromazine

Chemical Family: Not available.

Chemical Formula: C17-H19-Cl-N2-S

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) Chlorpromazine</td>
<td>50-53-3</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Exposure Limits

Toxicological Data on Ingredients

Chlorpromazine:

<table>
<thead>
<tr>
<th>Exposure Limit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute (LD50)</td>
<td>142 mg/kg [Rat]. 135 mg/kg [Mouse].</td>
</tr>
<tr>
<td>DUST (LC50)</td>
<td>Acute: 209 mg/m³ 2 hours [Rat].</td>
</tr>
</tbody>
</table>

Section 3. Hazards Identification

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

The substance may be toxic to blood, kidneys, cardiovascular system, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

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.

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

**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. 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.

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**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...), halogenated compounds.

**Fire Hazards in Presence of Various Substances**
Slightly flammable to flammable in presence of heat.
Non-flammable in presence of shocks.

**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**
Not available.

**Special Remarks on Explosion Hazards**
Not available.

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**Section 6. Accidental Release Measures**

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

**Large Spill**
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.

Continued on Next Page
Section 7. Handling and Storage

**Precautions**
Keep locked up. 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. Wear suitable protective clothing. 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.

**Storage**

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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. 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.

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Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical state and appearance</th>
<th>Solid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>Amine like.</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>318.86 g/mole</td>
</tr>
<tr>
<td>Taste</td>
<td>Not available.</td>
</tr>
<tr>
<td>Color</td>
<td>White.</td>
</tr>
<tr>
<td>pH (1% soln/water)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>200°C (392°F)</td>
</tr>
<tr>
<td>Melting Point</td>
<td>60°C (140°F)</td>
</tr>
<tr>
<td>Critical Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Volatility</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>Water/Oil Dist. Coeff.</td>
<td>The product is more soluble in oil; log(oil/water) = 5.3</td>
</tr>
<tr>
<td>Ionicity (in Water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Dispersion Properties</td>
<td>See solubility in water, diethyl ether.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Easily soluble in diethyl ether. Insoluble in cold water, hot water. Very soluble in ethanol, and benzene</td>
</tr>
</tbody>
</table>

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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>Heat</td>
</tr>
<tr>
<td>Incompatibility with various substances</td>
<td>Not available.</td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Special Remarks on Reactivity</td>
<td>When heated to decomposition, it emits very toxic fumes of hydrogen chloride, nitroxides, and sulfoxides. Sensitive to light. It will darken on prolonged exposure to light.</td>
</tr>
<tr>
<td>Special Remarks on Corrosivity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Polymerization</td>
<td>Will not occur.</td>
</tr>
</tbody>
</table>

**Section 11. Toxicological Information**

<table>
<thead>
<tr>
<th>Routes of Entry</th>
<th>Inhalation. Ingestion.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to Animals</td>
<td><strong>WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.</strong> Acute oral toxicity (LD50): 135 mg/kg [Mouse]. Acute toxicity of the dust (LC50): 209 mg/m³ 2 hours [Rat].</td>
</tr>
<tr>
<td>Chronic Effects on Humans</td>
<td><strong>MUTAGENIC EFFECTS:</strong> Mutagenic for bacteria and/or yeast. May cause damage to the following organs: blood, kidneys, cardiovascular system, central nervous system (CNS).</td>
</tr>
<tr>
<td>Other Toxic Effects on Humans</td>
<td>Hazardous in case of skin contact (irritant), of ingestion, of inhalation.</td>
</tr>
<tr>
<td>Special Remarks on Toxicity to Animals</td>
<td>Not available.</td>
</tr>
<tr>
<td>Special Remarks on Chronic Effects on Humans</td>
<td>May affect genetic material. May cause adverse reproductive effects and birth defects.</td>
</tr>
<tr>
<td>Special Remarks on other Toxic Effects on Humans</td>
<td>Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May cause gastrointestinal tract irritation, difficulty swallowing, dry mouth. May affect behavior/central nervous system (depression, muscle weakness, tremor, wakefulness, confusion, excitement, hypotonia, muscle twitching, sedation, convulsions, coma, drowsiness, spasm, or rigidity, ataxia), respiration (dyspnea, difficulty breathing)), blood(leukopenia, agranulocytosis) cardiovascular system (cardiac arrhythmias, tachycardia, hypotension), metabolism(hypothermia), liver (jaundice), skin (dermatitis, allergic reaction). Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may affect blood, liver (fatty liver degeneration), metabolism, eyes (retinal changes), cardiovascular system, adrenal gland, and urinary system (kidneys).</td>
</tr>
</tbody>
</table>

**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 as toxic as the product itself.</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**
Toxic Solid, Organic, n.o.s (Chlorpromazine) UNNA: 2811 PG: III

**Special Provisions for Transport**
Not available.

**DOT (Pictograms)**

![DOT Pictogram]

### Section 15. Other Regulatory Information and Pictograms

**Federal and State Regulations**
No products were found.

**California Proposition 65 Warnings**

**Other Regulations**
WHMIS (Canada) Not controlled under WHMIS (Canada).

**DSCL (EEC)**

**Other Classifications**

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

- **Health Hazard** 2
- **Fire Hazard** 1
- **Reactivity** 0

**WHMIS (Canada) (Pictograms)**

![WHMIS (Canada) Pictogram]

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**Continued on Next Page**
Protective Equipment

- Gloves.
- Lab coat.
- Dust respirator. Be sure to use an approved/certified respirator or equivalent.
- Splash goggles.

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Section 16. Other Information

<table>
<thead>
<tr>
<th>MSDS Code</th>
<th>C4098</th>
</tr>
</thead>
<tbody>
<tr>
<td>References</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other Special Considerations</td>
<td>Not available.</td>
</tr>
<tr>
<td>CALL (310) 516-8000</td>
<td></td>
</tr>
</tbody>
</table>

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.