Material Safety Data Sheet  
Mercurochrome, 24-27% Mercury (corrected for volatiles)

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Mercurochrome, 24-27% Mercury (corrected for volatiles)  
**Synonyms:** Merbromin; 2,7-Dibromo-4-hydroxymercurifluoresceine disodium salt;  
Disodium 2',7'-dibromo-4'-(hydroxymercury)fluorescein; Disodium 2,7-dibrom-4-  
hydroxy-mercuri-fluorescein; DOMF; Fluorescein, 2',7'-dibromo-4'-(hydroxymercurio)-, disodium salt;Mercury,

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>129-16-8</td>
<td>Mercurochrome</td>
<td>100</td>
<td>204-933-6</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: green crystals.  
**Danger!** May be fatal if inhaled, absorbed through the skin or swallowed. Danger of cumulative effects. The toxicological properties of this material have not been fully investigated.  
**Target Organs:** Nervous system.

**Potential Health Effects**

**Eye:** May cause eye irritation. May cause conjunctivitis.  
**Skin:** May be fatal if absorbed through the skin. May cause irritation and dermatitis.  
**Ingestion:** May be fatal if swallowed. May cause central nervous system depression. May cause excessive salivation and loosening of the teeth. May cause nausea, vomiting, and diarrhea, possibly with blood.  
**Inhalation:** May be fatal if inhaled. May produce general weakness, vomiting, diarrhea, chest pains, coughing, shortness of breath, and cardiac insufficiency. Causes irritation of the mucous membrane and upper respiratory tract.  
**Chronic:** There is a danger of cumulative effects. Chronic exposure to mercury compounds may produce immunologic glomerular disease.
Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a manner which limits further exposure.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**Notes to Physician:** Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Runoff from fire control or dilution water may cause pollution.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 3; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Do not flush into a sewer. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage
Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Minimize dust generation and accumulation. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use only in a chemical fume hood. Discard contaminated shoes.

Storage: Store in a tightly closed container. Poison room locked. Store in a cool, dry area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercurochrome</td>
<td>0.1 mg/m3 TWA (as Hg) (listed under Mercury, aryl and inorganic compounds). Skin - potential significant contribution to overall exposure by the cutaneous route (listed under Mercury, aryl and inorganic compounds).</td>
<td>0.05 mg/m3 TWA (vapor, except organo alkyls, as Hg) (listed under Mercury compounds). 10 mg/m3 IDLH (as Hg, not including organo(alkyl) compounds) (listed under Mercury compounds).</td>
<td>0.1 mg/m3 Ceiling (listed under Mercury, aryl and inorganic compounds).</td>
</tr>
</tbody>
</table>

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Section 9 - Physical and Chemical Properties

Physical State: Crystals

Appearance: green

Odor: none reported

pH: 8.8 (0.5% aq. soln)

Vapor Pressure: Not available.

Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point: > 300 deg C
Decomposition Temperature: Not available.
Solubility: Soluble.
Specific Gravity/Density: Not available.
Molecular Formula: C20H8Br2HgO6Na2
Molecular Weight: 750.43

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, dust generation.
Incompatibilities with Other Materials: Acids, alkaloid salts, strong oxidizing agents, strong acids.
Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, hydrogen bromide, mercury/mercury oxides.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: 
CAS# 129-16-8: LM5250000
LD50/LC50: Not available.

Carcinogenicity:
CAS# 129-16-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found
Teratogenicity: No information found
Reproductive Effects: No information found
Mutagenicity: Mutagenic effects have occurred in experimental animals.
Neurotoxicity: No information found
Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

**Section 14 - Transport Information**

<table>
<thead>
<tr>
<th>IATA</th>
<th>PHENYLMERCURIC COMPOUNDS, N.O.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shipping Name:</strong></td>
<td></td>
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<tr>
<td><strong>Hazard Class:</strong></td>
<td>6.1</td>
</tr>
<tr>
<td><strong>UN Number:</strong></td>
<td>UN2026</td>
</tr>
<tr>
<td><strong>Packing Group:</strong></td>
<td>II</td>
</tr>
</tbody>
</table>

**Section 15 - Regulatory Information**

**Hazard Symbols:**

- T+

**Risk Phrases:**

- R 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
- R 33 Danger of cumulative effects.

**Safety Phrases:**

- S 13 Keep away from food, drink and animal feeding stuffs.
- S 36 Wear suitable protective clothing.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S 28A After contact with skin, wash immediately with plenty of water.

**Section 16 - Additional Information**

**MSDS Creation Date:** 9/02/1997

**Revision #5 Date:** 1/18/2005

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