Section I - Product Identification
An aqueous solution of potassium permanganate.

Section II - Hazards Identification
Warning. Harmful if swallowed. Wash thoroughly after handling. Do not eat drink or smoke while using this product. If swallowed, rinse mouth with water and call a poison center.

Safety Ratings

<table>
<thead>
<tr>
<th>Health: Hazardous</th>
<th>Flammability: None</th>
<th>Reactivity: None</th>
<th>Contact: Slight</th>
</tr>
</thead>
</table>

Recommended safety equipment: Nothing unusual.
Storage: General storage
NFPA Ratings

- Health = 2
- Flammability = 0
- Reactivity = 0

Potential Health Effects
Manganese compounds are neurotoxic. May be harmful if swallowed. May be irritating to skin and eyes. Skin contact may cause irritation, staining and hardening of the skin. Ingestion of dilute permanganate solutions may cause abdominal pain, nausea, and vomiting.

- Inhalation: May be irritating
- Ingestion: While the toxicity of this compound is low, large doses may cause nausea, vomiting, diarrhea, etc.
- Skin contact: Not normally a problem
- Eye contact: May be irritating

Chronic Exposure: Unknown but manganese compounds are suspect in neurotoxic diseases such as parkinsonism.
Aggravation of preexisting conditions: Unknown

Section III - Composition/Information on Components

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS#</th>
<th>OSHA Pel</th>
<th>ACGIH TLV</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium permanganate</td>
<td>7722-64-7</td>
<td>5 mg/m³ TWA (Mn)</td>
<td>0.2 mg/m³ TWA (Mn)</td>
<td>1% w/v</td>
</tr>
</tbody>
</table>

Section IV - First Aid Measures
Inhalation: Unlikely to be a problem. Remove from source of exposure and get medical attention for any breathing difficulty.
Ingestion: If the victim is conscious administer large quantities of water and get medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Skin Contact: Wash affected area with soap and water. Get medical advice if irritation develops.
Eye Contact: Rinse thoroughly with running water. Get medical advice if irritation develops.
Section V - Fire Fighting Measures

*Flash point:* Not applicable.
*Flammable Limits:* Not applicable.
*Fire:* Not normally a fire hazard.
*Explosion:* Not normally an explosion hazards.
*Fire Extinguishing Media:* Any means suitable for surrounding fire.
*Special information:* Pyrolysis will release corrosive and toxic manganese oxides.

Section VI - Accidental Release Measures

Absorb with a suitable absorbent (such as paper towels) and store in a suitable container for disposal.

Section VII - Handling and Storage

Store in a closed container, protected from freezing.

Section VIII - Exposure Control/Personal Protection

*Airborne Exposure Limits:* See section III.
*Ventilation System:* Usually not required. When required, Refer to the ACGIH document, "Industrial Ventilation, a Manual of Recommended Practices" for details about ventilation.
*Personal Respirator:* Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.
*Skin Protection:* Protective gloves are required.
*Eye Protection:* Laboratory safety goggles or similar products are required.

Section IX - Physical and Chemical Properties

*Boiling Point:* 100 °C
*Vapor pressure (mm Hg):* 18 @ 20 °C
*Vapor Density (air = 1):* 0.6
*Appearance and Odor:* A clear, purple liquid.

*Density:* 1.0 g/ml
*Evaporation Rate (water = 1):* 1
*Solubility:* Infinitely miscible with water

Section X - Stability and Reactivity

*Stability:* Freezes at low temperature.
*Hazardous Decomposition Products:* Nothing unusual.
*Hazardous polymerization:* Will not occur.
*Incompatibilities:* Nothing unusual.
*Conditions to avoid:* Excessive cold/heat and light.

Section XI - Toxicological Information

None relating to normal exposure.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Known Carcinogenicity?</th>
<th>Anticipated?</th>
<th>IARC Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Permanganate</td>
<td>No</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

Section XII - Ecological Information

*Environmental Fate:* Not biodegradable.
*Environmental Toxicity:* Toxic to marine organisms.
Section XIII - Disposal Considerations

Local governments may restrict the amount of manganese compounds that can be flushed down the drain. Dispose of contents and container in accordance with all government regulations.

Section XIV - Transportation Information

Not regulated.

Section XV - Regulatory Information

### Chemical Inventory Status

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Permanganate</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Federal, State and International Regulations

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>SARA 302</th>
<th>SARA 313</th>
<th>RCRA 261.33</th>
<th>TSCA 8(D)</th>
<th>Ca. Prop 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Permanganate</td>
<td>RQ No</td>
<td>TPQ No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Chemical Weapons Convention: No</td>
<td>TSCA 12(b): No</td>
<td>Manganese Cmpd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SARA 311/312: Acute: Yes, Chronic: Yes, Fire: Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section XVI - Other Information

This information is believed to be correct but is not warranted as such, nor does it purport to be all inclusive.

Revision Date: Jan. 12, 2018