Material Safety Data Sheet
Potassium Permanganate Solutions, 0.1-5% w/v

Section 1 - Chemical Product and Company Identification

MSDS Name:
Potassium Permanganate Solutions, 0.1-5% w/v

Catalog Numbers:
LC19860, LC19900, LC19930, LC19940, LC19960, LC19980, LC19990, LC20000, LC20030, LC20040, LC20050

Synonyms:
None

Company Identification:
LabChem Inc
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:
(412) 826-5230

Emergency Phone Number:
(800) 424-9300

CHEMTREC Phone Number:
(800) 424-9300 or
011-703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name:</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>balance</td>
</tr>
<tr>
<td>7722-64-7</td>
<td>Potassium permanganate</td>
<td>0.1-5</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

Emergency Overview

Appearance: dark purple solution

Warning! Oxidizer. May cause irritation to eyes, skin, and respiratory tract. May cause kidney damage.

Target Organs: kidneys

Potential Health Effects

Eye:
May cause eye irritation.

Skin:
May cause skin irritation. May cause brown to black skin discoloration.

Ingestion:
May cause gastrointestinal irritation with nausea, vomiting, and diarrhea. May cause kidney damage.
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Inhalation:
May cause respiratory tract irritation.

Chronic:
May cause kidney damage.

Section 4 - First Aid Measures

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:
Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:
Give conscious victim 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid at once.

Inhalation:
Move victim to fresh air immediately. If breathing is difficult, administer oxygen. Give artificial respiration if necessary. Get medical aid at once.

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. Oxidizer: contributes oxygen which may spread fire.

Extinguishing Media:
For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:
Not available

Flash Point:
Not available

NFPA Rating:
Health- 1, Flammability- 0, Instability- 0

Explosion Limits:
Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures

General Information:
Use proper personal protective equipment as indicated in Section 8.
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Spills/Leaks:
Absorb spill with inert material such as sand, vermiculite, or diatomaceous earth, and transfer to a suitable container labeled for later disposal.

Section 7 - Handling and Storage

Handling:
Wash thoroughly after handling. Do not ingest or inhale. Do not get in eyes, on skin, or on clothing.

Storage:
Store tightly capped in a cool, dry, well-ventilated area away from incompatible materials. Keep away from combustible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:
Facilities using or storing this material should be equipped with an eyewash and safety shower. Provide local exhaust or general dilution ventilation to keep airborne levels below the permissible exposure limits.

Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>None listed</td>
<td>None listed</td>
<td>None listed</td>
</tr>
<tr>
<td>Potassium permanganate</td>
<td>0.2 mg/m3 TWA (as Mn)</td>
<td>1 mg/m3 TWA (as Mn)</td>
<td>5 mg/m3 Ceiling (as Mn)</td>
</tr>
<tr>
<td></td>
<td>(listed as Manganese, inorganic compounds)</td>
<td>(listed as Manganese, inorganic compounds)</td>
<td>(listed as Manganese, inorganic compounds)</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs:
None

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. Do not wear contact lenses when working with chemicals.

Skin:
Wear appropriate protective gloves to prevent skin exposure.

Clothing:
Wear appropriate protective clothing to prevent skin exposure.

Respirators:
Follow the OSHA respirator regulations found in 29 CFR 1910.134. Always use a NIOSH-approved respirator when necessary.

Section 9 - Physical and Chemical Properties
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Physical State: Liquid
Color: Dark purple
Odor: Odorless
pH: Not available
Vapor Pressure: Not available
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: Not available
Decomposition Temperature: Not available
Solubility in water: Soluble
Specific Gravity/Density: 1.0-1.1
Molecular Formula: Not applicable
Molecular Weight: Not applicable

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal temperatures and pressures.

Conditions to Avoid:
Incompatible materials, excess heat.

Incompatibilities with Other Materials:
Reducing agents, combustible materials

Hazardous Decomposition Products:
Oxides of potassium, oxides of magnesium

Hazardous Polymerization:
Has not been reported.

Section 11 - Toxicological Information

RTECS:
CAS# 7732-18-5: ZC0110000
CAS# 7722-64-7: SD6475000

LD50/LC50:
CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg
CAS# 7722-64-7:
Oral, rat: LD50 = 750 mg/kg

Carcinogenicity:
CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NTP, OSHA, or California Proposition 65.
CAS# 7722-64-7: Not listed as a carcinogen by ACGIH, IARC, NTP, OSHA, or California Proposition 65.

Epidemiology:
May cause kidney damage.

Teratogenicity:
No information found
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Reproductive:
No information found

Mutagenicity:
No information found

Neurotoxicity:
No information found

Section 12 - Ecological Information
No information found.

Section 13 - Disposal Considerations
Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information
US DOT
Shipping Name: Not regulated
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information
US Federal
TSCA:
CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 7722-64-7 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):
CAS# 7722-64-7: final RQ = 100 lb. (45.4 Kg)

CERCLA/SARA Section 313:
None of the components of this product are listed.

OSHA - Highly Hazardous:
None of the components of this product are listed.

US State
State Right to Know:
CAS# 7722-64-7 is listed on the following state Right-to-Know lists: California, Delaware, Massachusetts, New York, Pennsylvania.

California Regulations:
None

European/International Regulations
Canadian DSL/NDSL:
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CAS# 7732-18-5 is listed on Canada's DSL List.
CAS# 7722-64-7 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:
CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 7722-64-7 is listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: February 17, 1998
Revision Date: November 29, 2010

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