Safety Data Sheet


Initial preparation date: 04.24.2017

Potassium Permanganate, 0.01M

SECTION 1: Identification

Product identifier

Product name: Potassium Permanganate, 0.01M
Product code: S25869

Recommended use of the product and restriction on use

Relevant identified uses: Oct 16 2015 12:00AM
Uses advised against: Not determined or not applicable.
Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer: United States
AquaPhoenix Scientific
860 Gitts Run Road
Hanover
PA 17331
(717) 632-1291

Supplier: United States
Fisher Science Education
6771 Silver Crest Road
Nazareth
PA 18064
800 955-1177

Emergency telephone number:
United States
Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard(s) identification

GHS classification:
Chronic aquatic hazard, category 3

Label elements

Hazard pictograms: None

Signal word: None

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
P273 Avoid release to the environment.
P501 Dispose of contents and container as instructed in Section 13.

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Identification</th>
<th>Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 7732-18-5</td>
<td>Water</td>
<td>&lt;100</td>
</tr>
<tr>
<td>CAS number: 7722-64-7</td>
<td>Potassium Permanganate</td>
<td>&lt;2.5</td>
</tr>
</tbody>
</table>

Additional Information: None

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SECTION 4: First aid measures

Description of first aid measures

General notes:
Not determined or not applicable.

After inhalation:
Loosen clothing as necessary and position individual in a comfortable position
Maintain an unobstructed airway
Get medical advice/attention if you feel unwell

After skin contact:
Rinse affected area with soap and water
If symptoms develop or persist, seek medical attention

After eye contact:
Rinse/flush exposed eye(s) gently using water for 15-20 minutes
Remove contact lenses, if present and easy to do
Continue rinsing
Get medical advice/attention

After swallowing:
Rinse mouth and then drink plenty of water
Do not induce vomiting
Get medical advice/attention if you feel unwell

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:
Not determined or not applicable.

Delayed symptoms and effects:
Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:
Not determined or not applicable.

Notes for the doctor:
Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:
Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:
Not determined or not applicable.

Specific hazards during fire-fighting:
Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:
Wear protective eye wear, gloves and clothing
Refer to Section 8
Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:
Heating causes a rise in pressure, risk of bursting and combustion
Shut off sources of ignition
SECTION 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**
- Ensure adequate ventilation
- Ensure air handling systems are operational
- Wear protective eye wear, gloves and clothing

**Environmental precautions:**
- Should not be released into the environment
- Prevent from reaching drains, sewer or waterway

**Methods and material for containment and cleaning up:**
- Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)
- Dispose of contents / container in accordance with local regulations

**Reference to other sections:**
- Not determined or not applicable.

SECTION 7: Handling and storage

**Precautions for safe handling:**
- Do not eat, drink, smoke or use personal products when handling chemical substances.
- Avoid breathing mist or vapor.
- Use only with adequate ventilation.

**Conditions for safe storage, including any incompatibilities:**
- Store in a cool, well-ventilated area.
- Store away from foodstuffs.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

**Occupational Exposure limit values:**

<table>
<thead>
<tr>
<th>Country (Legal Basis)</th>
<th>Substance</th>
<th>Identifier</th>
<th>Permissible concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>Potassium Permanganate</td>
<td>7722-64-7</td>
<td>ACGIH TLV 0.02 mg/m³, as Mn (respirable fraction)</td>
</tr>
<tr>
<td>United States (OSHA)</td>
<td>Potassium Permanganate</td>
<td>7722-64-7</td>
<td>ACGIH TLV 0.1 mg/m³, as Mn (inhalable fraction)</td>
</tr>
<tr>
<td></td>
<td>Potassium Permanganate</td>
<td>7722-64-7</td>
<td>OSHA PEL C 5 mg/m³, as Mn</td>
</tr>
</tbody>
</table>

**Biological limit values:**
- No biological exposure limits noted for the ingredient(s).

**Information on monitoring procedures:**
- Not determined or not applicable.

**Appropriate engineering controls:**
- Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.
- Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

**Personal protection equipment**
- **Eye and face protection:**
Potassium Permanganate, 0.01M

Safety goggles or glasses, or appropriate eye protection.

**Skin and body protection:**
Select glove material impermeable and resistant to the substance.

**Respiratory protection:**
When necessary, use NIOSH-approved breathing equipment.

**General hygienic measures:**
Wash hands before breaks and at the end of work.
Avoid contact with skin, eyes and clothing.
Perform routine housekeeping.
Wash contaminated clothing before reusing.

### SECTION 9: Physical and chemical properties

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Purple colored liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Approx. -2°C</td>
</tr>
<tr>
<td>Initial boiling point/range</td>
<td>Approx. 1012°C</td>
</tr>
<tr>
<td>Flash point (closed cup)</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Upper flammability/explosive limit</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Lower flammability/explosive limit</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Density</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.0-1.04</td>
</tr>
<tr>
<td>Solubilities</td>
<td>Infinite solubility in water.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Auto/Self-ignition temperature</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not determined or not available.</td>
</tr>
</tbody>
</table>

**Other information**

### SECTION 10: Stability and reactivity

**Reactivity:**
Does not react under normal conditions of use and storage.

**Chemical stability:**
Stable under normal conditions of use and storage.

**Possibility of hazardous reactions:**
None under normal conditions of use and storage.

Conditions to avoid:
None known.

Incompatible materials:
None known.

Hazardous decomposition products:
None known.

SECTION 11: Toxicological information

Acute toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data:

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Permanganate</td>
<td>oral</td>
<td>LD50 Oral - Rat - 1090 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Serious eye damage/irritation
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Respiratory or skin sensitization
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Carcinogenicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.
International Agency for Research on Cancer (IARC): None of the ingredients are listed.
National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Reproductive toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Specific target organ toxicity (single exposure)
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Specific target organ toxicity (repeated exposure)
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Assessment toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Information on likely routes of exposure: No data available.
Symptoms related to the physical, chemical and toxicological characteristics: No data available.
Other information: No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data:

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Permanganate</td>
<td>EC50 - Daphnia magna - 84 ug/L - 48 h</td>
</tr>
<tr>
<td></td>
<td>LC50 - Oncorhynchus mykiss - 3.9 mg/L - 24h</td>
</tr>
</tbody>
</table>

Chronic (long-term) toxicity
Product data: No data available.
Substance data:

Persistence and degradability
Product data: No data available.
Substance data: No data available.

Bioaccumulative potential
Product data: No data available.
Substance data: No data available.

Mobility in soil
Product data: No data available.
Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:
It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

<table>
<thead>
<tr>
<th>UN number</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>Not regulated</td>
</tr>
<tr>
<td>UN transport hazard class(es)</td>
<td>None</td>
</tr>
<tr>
<td>Packing group</td>
<td>None</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>None</td>
</tr>
</tbody>
</table>
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Special precautions for user

None

International Maritime Dangerous Goods (IMDG)

UN number
Not regulated

UN proper shipping name
Not regulated

UN transport hazard class(es)
None

Packing group
None

Environmental hazards

Special precautions for user
None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number
Not regulated

UN proper shipping name
Not regulated

UN transport hazard class(es)
None

Packing group
None

Environmental hazards

Special precautions for user
None

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Bulk Name
None

Ship type
None

Pollution category
None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

<table>
<thead>
<tr>
<th>UN number</th>
<th>Description</th>
<th>Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>Listed</td>
</tr>
<tr>
<td>7722-64-7</td>
<td>Potassium Permanganate</td>
<td>Listed</td>
</tr>
</tbody>
</table>

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

<table>
<thead>
<tr>
<th>Hazard Type</th>
<th>Acute</th>
<th>Chronic</th>
<th>Fire</th>
<th>Pressure</th>
<th>Reactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

<table>
<thead>
<tr>
<th>UN number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7722-64-7</td>
<td>Potassium Permanganate</td>
</tr>
</tbody>
</table>

CERCLA:

<table>
<thead>
<tr>
<th>UN number</th>
<th>Description</th>
<th>Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>7722-64-7</td>
<td>Potassium Permanganate</td>
<td>Listed</td>
</tr>
</tbody>
</table>

RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:
Potassium Permanganate, 0.01M

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>Listed/Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>7722-64-7</td>
<td>Potassium Permanganate</td>
<td>Listed</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

New Jersey Right to Know:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>Listed/Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>7722-64-7</td>
<td>Potassium Permanganate</td>
<td>Not Listed</td>
</tr>
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<td>7732-18-5</td>
<td>Water</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

New York Right to Know:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>Listed/Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>7722-64-7</td>
<td>Potassium Permanganate</td>
<td>Not Listed</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

Pennsylvania Right to Know:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>Listed/Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>7722-64-7</td>
<td>Potassium Permanganate</td>
<td>Listed</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

California Proposition 65: Not determined.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 2-0-0-ox
HMIS: 2-0-0-X
Initial preparation date: 04.24.2017

End of Safety Data Sheet