

SAFETY DATA SHEET

Creation Date 22-Sep-2009

Revision Date 25-Apr-2019

Revision Number 5

1. Identification

Product Name Potassium Permanganate Solution, 0.1N (Certified)

Cat No. : SP288-1; SP288-4

Synonyms None

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300

CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label Elements

Hazard Statements

Precautionary Statements

Hazards not otherwise classified (HNOC)

Toxic to aquatic life with long lasting effects

3. Composition/Information on Ingredients

| Component | CAS-No | Weight % |
|------------------------|-----------|----------|
| Water | 7732-18-5 | 99.684 |
| Potassium permanganate | 7722-64-7 | 0.316 |

4. First-aid measures

| | |
|--|--|
| Eye Contact | Flush eyes with water as a precaution. Get medical attention if symptoms occur. |
| Skin Contact | Rinse with plenty of water. Get medical attention if symptoms occur. |
| Inhalation | Move to fresh air. Get medical attention if symptoms occur. If not breathing, give artificial respiration. |
| Ingestion | Do not induce vomiting. Obtain medical attention. |
| Most important symptoms and effects | No information available. |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting measures

| | |
|---|---|
| Suitable Extinguishing Media | Substance is nonflammable; use agent most appropriate to extinguish surrounding fire. |
| Unsuitable Extinguishing Media | No information available |
| Flash Point | Not applicable |
| Method - | No information available |
| Autoignition Temperature | No information available |
| Explosion Limits | |
| Upper | No data available |
| Lower | No data available |
| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge | No information available |

Specific Hazards Arising from the Chemical

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. None reasonably foreseeable.

Hazardous Combustion Products

Heavy metal oxides

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
2

Flammability
0

Instability
0

Physical hazards
N/A

6. Accidental release measures

| | |
|---|--|
| Personal Precautions | Use personal protective equipment. Ensure adequate ventilation. Avoid contact with the skin and the eyes. |
| Environmental Precautions | Do not flush into surface water or sanitary sewer system. Should not be released into the environment. Do not allow material to contaminate ground water system. |
| Methods for Containment and Clean Up | Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. |

7. Handling and storage

| | |
|-----------------|--|
| Handling | Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin and eyes. Avoid ingestion and inhalation. |
|-----------------|--|

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection**Exposure Guidelines**

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH | Mexico OEL (TWA) |
|------------------------|---|--|--|----------------------------|
| Potassium permanganate | TWA: 0.02 mg/m ³ TWA: 0.1 mg/m ³ | (Vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ | IDLH: 500 mg/m ³ TWA: 1 mg/m ³ STEL: 3 mg/m ³ | TWA: 0.2 mg/m ³ |

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures

None under normal use conditions.

Personal Protective Equipment**Eye/face Protection**

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 and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

No protective equipment is needed under normal use conditions.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

| | |
|--|--------------------------|
| Physical State | Liquid |
| Appearance | Purple |
| Odor | Odorless |
| Odor Threshold | No information available |
| pH | No information available |
| Melting Point/Range | 0 °C / 32 °F |
| Boiling Point/Range | 100 °C / 212 °F |
| Flash Point | Not applicable |
| Evaporation Rate | > 1 (Ether = 1.0) |
| Flammability (solid,gas) | Not applicable |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | 14 mmHg |
| Vapor Density | 0.7 |
| Specific Gravity | 1.0 |
| Solubility | No information available |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temperature | No information available |
| Decomposition Temperature | No information available |
| Viscosity | No information available |

10. Stability and reactivity**Reactive Hazard**

None known, based on information available

Stability

Stable under normal conditions.

| | |
|---|--|
| Conditions to Avoid | Excess heat. |
| Incompatible Materials | None known |
| Hazardous Decomposition Products | Heavy metal oxides |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | None under normal processing. |

11. Toxicological information

Acute Toxicity

Product Information No acute toxicity information is available for this product

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|------------------------|--------------------------|-------------|-----------------|
| Water | - | Not listed | Not listed |
| Potassium permanganate | LD50 = 750 mg/kg (Rat) | Not listed | Not listed |

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|------------------------|-----------|------------|------------|------------|------------|------------|
| Water | 7732-18-5 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Potassium permanganate | 7722-64-7 | Not listed | Not listed | Not listed | Not listed | Not listed |

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment. Contains a substance which is: Very toxic to aquatic organisms. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|------------------------|------------------|--|------------|------------|
| Potassium permanganate | Not listed | 2.97-3.11 mg/L LC50 96 h 3.16-3.77 mg/L LC50 96 h 3.3-3.93 mg/L LC50 96 h 2.3 mg/L LC50 96 h 0.769-1.27 mg/L LC50 96 h 1.08-1.38 mg/L LC50 96 h 1.8-5.6 mg/L LC50 96 h 2.7 mg/L LC50 96 h | Not listed | Not listed |

Persistence and Degradability May persist

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN3082
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.
 Proper technical name POTASSIUM PERMANGANATE
 Hazard Class 9
 Packing Group III

TDG

UN-No UN3082
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.
 Hazard Class 9
 Packing Group III

IATA

UN-No UN3082
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.*
 Hazard Class 9
 Packing Group III

IMDG/IMO

UN-No UN3082
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 Hazard Class 9
 Packing Group III

15. Regulatory information

United States of America Inventory

| Component | CAS-No | TSCA | TSCA Inventory notification - Active/Inactive | TSCA - EPA Regulatory Flags |
|------------------------|-----------|------|---|-----------------------------|
| Water | 7732-18-5 | X | ACTIVE | - |
| Potassium permanganate | 7722-64-7 | X | ACTIVE | - |

Legend:

TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

| Component | CAS-No | DSL | NDL | EINECS | PICCS | ENCS | AICS | IECSC | KECL |
|------------------------|-----------|-----|-----|-----------|-------|------|------|-------|----------|
| Water | 7732-18-5 | X | - | 231-791-2 | X | - | X | X | KE-35400 |
| Potassium permanganate | 7722-64-7 | X | - | 231-760-3 | X | X | X | X | KE-29180 |

U.S. Federal Regulations**SARA 313**

| Component | CAS-No | Weight % | SARA 313 - Threshold Values % |
|------------------------|-----------|----------|-------------------------------|
| Potassium permanganate | 7722-64-7 | 0.316 | 1.0 |

SARA 311/312 Hazard Categories See section 2 for more information**CWA (Clean Water Act)**

| Component | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|------------------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Potassium permanganate | X | 100 lb | - | - |

Clean Air Act

| Component | HAPS Data | Class 1 Ozone Depleters | Class 2 Ozone Depleters |
|------------------------|-----------|-------------------------|-------------------------|
| Potassium permanganate | X | | - |

OSHA - Occupational Safety and Health Administration Not applicable**CERCLA**

| Component | Hazardous Substances RQs | CERCLA EHS RQs |
|------------------------|--------------------------|----------------|
| Potassium permanganate | 100 lb | - |

California Proposition 65 This product does not contain any Proposition 65 chemicals**U.S. State Right-to-Know Regulations**

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|------------------------|---------------|------------|--------------|----------|--------------|
| Water | - | - | X | - | - |
| Potassium permanganate | X | X | X | X | X |

U.S. Department of Transportation

Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product contains the following DHS chemicals:

Legend - STQs = Screening Threshold Quantities, APA = A placarded amount

| Component | DHS Chemical Facility Anti-Terrorism Standard |
|------------------------|---|
| Potassium permanganate | Theft STQs - 400lb |

Other International Regulations**Mexico - Grade** No information available**16. Other information**

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Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS