

# Material Safety Data Sheet

## Potassium Permanganate Solutions, 0.1N-.5N

ACC# 40155

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Potassium Permanganate Solutions, 0.1N-.5N

**Catalog Numbers:** NC9257853, SP288-1, SP288-4

**Synonyms:** None

**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7722-64-7	Potassium permanganate	.316-1.5	231-760-3
7732-18-5	Water	Balance	231-791-2

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: purple liquid.

**Caution!** May cause eye, skin, and respiratory tract irritation. May cause kidney damage.

**Target Organs:** Kidneys.

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation. May cause skin discoloration.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage.

**Inhalation:** May cause respiratory tract irritation.

**Chronic:** May cause kidney damage.

## Section 4 - First Aid Measures

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

**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. Wash clothing before reuse.

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

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

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

## Section 5 - Fire Fighting Measures

**General Information:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.

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

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

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

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

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

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Provide ventilation. Clean up residual material by washing area with a 2-5% solution of soda ash.

## Section 7 - Handling and Storage

**Handling:** Use with adequate ventilation. Avoid contact with skin and eyes. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated 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 ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Potassium permanganate	0.2 mg/m <sup>3</sup> TWA (as Mn) (listed under Manganese, inorganic compounds).	1 mg/m <sup>3</sup> TWA (as Mn) (listed under Manganese compounds, n.o.s.).500 mg/m <sup>3</sup> IDLH (as Mn) (listed under Manganese compounds, n.o.s.).	5 mg/m <sup>3</sup> Ceiling (as Mn) (listed under Manganese compounds, n.o.s.).
Water	none listed	none listed	none listed

**OSHA Vacated PELs:** Potassium permanganate: No OSHA Vacated PELs are listed for this chemical. Water: No OSHA Vacated PELs are listed for this chemical.

### 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 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 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** purple

**Odor:** none reported  
**pH:** Not available.  
**Vapor Pressure:** 14 mm Hg  
**Vapor Density:** 0.7  
**Evaporation Rate:**>1 (ether=1)  
**Viscosity:** Not available.  
**Boiling Point:** 100 deg C  
**Freezing/Melting Point:**0 deg C  
**Decomposition Temperature:**Not available.  
**Solubility:** Not available.  
**Specific Gravity/Density:**1.0  
**Molecular Formula:**Mixture  
**Molecular Weight:**Not available.

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** High temperatures, incompatible materials.  
**Incompatibilities with Other Materials:** Potassium permanganate explodes on contact with some acids such as acetic acid, concentrated hydrochloric acid, and formaldehyde, ammonium nitrate, dimethylformamide. Forms sensitive explosive mixtures with ammonium perchlorate, titanium, arsenic, phosphorus, slag wool, and sulfur. React with reducing agents.  
**Hazardous Decomposition Products:** Oxides of potassium, oxides of magnesium.  
**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 7722-64-7: SD6475000

**CAS#** 7732-18-5: ZC0110000

**LD50/LC50:**

CAS# 7722-64-7:

Oral, mouse: LD50 = 2157 mg/kg;

Oral, mouse: LD50 = 750 mg/kg;

Oral, rat: LD50 = 750 mg/kg;

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg;

**Carcinogenicity:**

CAS# 7722-64-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available.

**Teratogenicity:** No information available.

**Reproductive Effects:** No information available.

**Mutagenicity:** No information available.

**Neurotoxicity:** No information available.

**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

	US DOT	Canada TDG
<b>Shipping Name:</b>	Not Regulated	Not Regulated
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 7722-64-7 is listed on the TSCA inventory.

CAS# 7732-18-5 is listed on the TSCA inventory.

**Health & Safety Reporting List**

None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**

None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**

None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**

CAS# 7722-64-7: 100 lb final RQ; 45.4 kg final RQ

**SARA Section 302 Extremely Hazardous Substances**

None of the chemicals in this product have a TPQ.

**SARA Codes**

CAS # 7722-64-7: immediate, delayed, fire.

**Section 313**

This material contains Potassium permanganate (listed as Manganese compounds, n.o.s.), .316-1.5%, (CAS# 7722-64-7) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**Clean Air Act:**

CAS# 7722-64-7 (listed as Manganese compounds, n.o.s.) is listed as a hazardous air pollutant (HAP).

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**

CAS# 7722-64-7 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 7722-64-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, (listed as Manganese compounds, n.o.s.), Massachusetts.

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**

Not available.

**Risk Phrases:**

**Safety Phrases:**

S 24/25 Avoid contact with skin and eyes.

**WGK (Water Danger/Protection)**

CAS# 7722-64-7: 2

CAS# 7732-18-5: No information available.

**Canada - DSL/NDSL**

CAS# 7722-64-7 is listed on Canada's DSL List.

CAS# 7732-18-5 is listed on Canada's DSL List.

**Canada - WHMIS**

not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 7722-64-7 is listed on the Canadian Ingredient Disclosure List.

## Section 16 - Additional Information

**MSDS Creation Date:** 1/26/1999

**Revision #6 Date:** 11/06/2007

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*