



# Material Safety Data Sheet

## Section 1. Product and Company Identification

<b>Product Name</b>	Potassium Permanganate 0.1N	<b>Product Code</b>	VW3213
<b>Manufacturer</b>	EMD Chemicals Inc. P.O. Box 70 480 Democrat Road Gibbstown, NJ 08027 Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.	<b>Effective Date</b>	5/12/2005
		<b>Print Date</b>	5/17/2005

### For More Information Call

856-423-6300 Technical Service  
Monday-Friday: 8:00 AM - 5:00 PM

### In Case of Emergency Call

800-424-9300 CHEMTREC (USA)  
613-996-6666 CANUTEC (Canada)  
24 Hours/Day: 7 Days/Week

**Synonym** None.

**Material Uses** Laboratory Reagent

**Chemical Family** Inorganic acid solution

## Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
Potassium Permanganate	7722-64-7	<1
Water	7732-18-5	>99

## Section 3. Hazards Identification

**Physical State and Appearance** Liquid.

**Emergency Overview** CAUTION !  
MILD OXIDIZER  
MAY BE HARMFUL IF SWALLOWED.  
MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

**Routes of Entry** Dermal contact. Eye contact. Ingestion.

### Potential Acute Health Effects

**Eyes** May be hazardous in case of eye contact (irritant).

**Skin** May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**Inhalation** May be hazardous in case of inhalation (lung irritant).

**Ingestion** May be hazardous in case of ingestion. Do not take internally.

### Potential Chronic Health Effects

**Carcinogenic Effects** This material is not known to cause cancer in animals or humans.

Additional information See Toxicological Information (section 11)

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**Medical Conditions** Repeated or prolonged exposure is not known to aggravate medical condition.

**Aggravated by**

**Overexposure:**

#### Section 4. First Aid Measures

<b>Eye Contact</b>	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion</b>	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

#### Section 5. Fire Fighting Measures

<b>Flammability of the Product</b>	Non-flammable.
<b>Auto-ignition Temperature</b>	Not applicable.
<b>Flash Points</b>	Not applicable.
<b>Flammable Limits</b>	Not applicable.
<b>Products of Combustion</b>	Not applicable.
<b>Fire Hazards in Presence of Various Substances</b>	Not applicable.
<b>Explosion Hazards in Presence of Various Substances</b>	Risks of explosion of the product in presence of static discharge: No. Risks of explosion of the product in presence of mechanical impact: No.
<b>Fire Fighting Media and Instructions</b>	Not applicable.
<b>Protective Clothing (Fire)</b>	Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.
<b>Special Remarks on Fire Hazards</b>	Not available.
<b>Special Remarks on Explosion Hazards</b>	Explosive in contact with H <sub>2</sub> SO <sub>4</sub> or H <sub>2</sub> O <sub>2</sub> . (Potassium Permanganate)

#### Section 6. Accidental Release Measures

<b>Small Spill and Leak</b>	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
<b>Large Spill and Leak</b>	Absorb with an inert material and put the spilled material in an appropriate waste disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
<b>Spill Kit Information</b>	No specific spill kit required for this product.

**Section 7. Handling and Storage**

<b>Handling</b>	Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapors or spray mists. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.
<b>Storage</b>	Keep container tightly closed. Keep container in a cool, well-ventilated area.

**Section 8. Exposure Controls/Personal Protection**

<b>Engineering Controls</b>	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.
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**Personal Protection**

**Eyes** Splash goggles.

**Body** Lab coat.

**Respiratory** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

**Hands** Gloves.

**Feet** Not applicable.

**Protective Clothing (Pictograms)****Personal Protection in Case of a Large Spill**

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Product Name**

Potassium Permanganate

**Exposure Limits****Belgium Minister of Labour (Belgium, 1998).**

VL: 0.2 mg/m<sup>3</sup> 8 hour(s).

**BAUA (Germany, 1997).**

Spitzenbegrenzung: 2 mg/m<sup>3</sup>

TWA: 0.5 mg/m<sup>3</sup> 8 hour(s).

**DK-Arbejdstyilsinet (Denmark, 1996).**

GV: 2.5 mg/m<sup>3</sup> 8 hour(s).

**Tyterveyslaitos (Finland, 1998).**

TWA: 0.5 mg/m<sup>3</sup> 8 hour(s).

**INRS (France, 1996).**

VME: 1 mg/m<sup>3</sup> 8 hour(s).

**National Authority for Occupational Safety/Health (Ireland, 1999).**

OEL: 5 mg/m<sup>3</sup> 8 hour(s).

**Arbeidsinspectie (Netherlands, 1999).**

TGG 15 min: 3 mg/m<sup>3</sup> 15 minute(s).

TGG 8 uur: 1 mg/m<sup>3</sup> 8 hour(s).

**N-Arbejdstyilsinet (Norway, 1996).**

AN: 2.5 mg/m<sup>3</sup> 8 hour(s).

**AFS (Sweden, 1996).**

NGV: 1 mg/m<sup>3</sup> 8 hour(s).

**EH40-OES (United Kingdom (UK), 1997).**

TWA: 5 mg/m<sup>3</sup> 8 hour(s).

**ACGIH (United States, 1995).**

TWA: 0.2 mg/m<sup>3</sup> 8 hour(s).

**OSHA Final Rule (United States, 1989).**

CEIL: 5 mg/m<sup>3</sup>

Not available.

Water

**Section 9. Physical and Chemical Properties**

<b>Odor</b>	Odorless.
<b>Color</b>	Purple.
<b>Physical State and Appearance</b>	Liquid.
<b>Molecular Weight</b>	Not applicable.
<b>Molecular Formula</b>	Not applicable.
<b>pH</b>	Not available.
<b>Boiling/Condensation Point</b>	The lowest known value is 99.9°C (211.8°F) (Water).
<b>Melting/Freezing Point</b>	May start to solidify at -0.1°C (31.8°F) based on data for: Water.
<b>Specific Gravity</b>	Not available.
<b>Vapor Pressure</b>	Not available.
<b>Vapor Density</b>	Not available.
<b>Odor Threshold</b>	Not available.
<b>Evaporation Rate</b>	0.36 (Water) compared to(n-Butyl Acetate =1)
<b>LogK<sub>ow</sub></b>	Not available.
<b>Solubility</b>	Soluble in water.

**Section 10. Stability and Reactivity**

<b>Stability and Reactivity</b>	The product is stable.
<b>Conditions of Instability</b>	Not available.
<b>Incompatibility with Various Substances</b>	Highly reactive with reducing agents, combustible materials.
<b>Rem/Incompatibility</b>	Avoid sulphuric acid, potassium, hydrogen peroxide
<b>Hazardous Decomposition Products</b>	Potassium monoxide, MnOx
<b>Hazardous Polymerization</b>	Will not occur.

**Section 11. Toxicological Information**

<b>RTECS Number:</b>	Potassium Permanganate Water	SD6475000 ZC0110000
<b>Toxicity</b>	LD <sub>50</sub> : Not available. LC <sub>50</sub> : Not available.	
<b>Chronic Effects on Humans</b>	Not available.	
<b>Acute Effects on Humans</b>	May be hazardous in case of eye contact (irritant). May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. May be hazardous in case of inhalation (lung irritant). May be hazardous in case of ingestion.	

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**Synergetic Products (Toxicologically)** Not available.

**Irritancy** Draize Test: Not available.

**Sensitization** Not available.

**Carcinogenic Effects** This material is not known to cause cancer in animals or humans.

**Toxicity to Reproductive System** Not available.

**Teratogenic Effects** Not available.

**Mutagenic Effects** Not available.

### Section 12. Ecological Information

**Ecotoxicity** Not available.

**BOD5 and COD** Not available.

**Toxicity of the Products of Biodegradation** The products of degradation are less toxic than the product itself.

### Section 13. Disposal Considerations

**EPA Waste Number** Not available.

**Treatment** Material does not have an EPA Waste number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished.

### Section 14. Transport Information

**DOT Classification** Not available.

**TDG Classification** Not available.

**IMO/IMDG Classification** Not available.

**ICAO/IATA Classification** Not available.

### Section 15. Regulatory Information

**U.S. Federal Regulations** TSCA 8(b) inventory: Potassium Permanganate; Water  
SARA 302/304/311/312 extremely hazardous substances: No products were found.  
SARA 302/304 emergency planning and notification: No products were found.  
SARA 302/304/311/312 hazardous chemicals: Potassium Permanganate  
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Potassium Permanganate: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: Potassium Permanganate

Clean air act (CAA) 112 accidental release prevention: No products were found.

Clean air act (CAA) 112 regulated flammable substances: No products were found.

Clean air act (CAA) 112 regulated toxic substances: No products were found.

**WHMIS (Canada)** Class D-2B: Material causing other toxic effects (TOXIC).

CEPA DSL: Potassium Permanganate; Water

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

#### International Regulations

**EINECS** Potassium Permanganate 231-760-3  
Water 231-791-2

**DSCL (EEC)** This product is not classified according to the EU regulations.

**International Lists** Australia (NICNAS): Potassium Permanganate; Water

Japan (MITI): Potassium Permanganate; Water

Korea (TCCL): Potassium Permanganate; Water

Philippines (RA6969): Potassium Permanganate; Water

China: No products were found.

#### State Regulations

Pennsylvania RTK: Potassium Permanganate: (environmental hazard, generic environmental hazard)

Massachusetts RTK: Potassium Permanganate

New Jersey: Potassium Permanganate 0.1N

California prop. 65: No products were found.

### Section 16. Other Information

**National Fire  
Protection  
Association  
(U.S.A.)**



**Changed Since Last  
Revision**

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#### Notice to Reader

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