



# Safety Data Sheet

According to Hazardous Products Regulation (SOR/2015-17)

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### Product identifier

Trade name/designation:	Potassium permanganate, low Hg
Product No.:	74477
Synonymes:	no data available
CAS No.:	7722-64-7
Other means of identification:	

### Relevant identified uses of the substance or mixture and uses advised against

Recommended Use:	For Further Manufacturing Use Only
Uses advised against:	Not for Human or Animal Drug Use

### Details of the supplier of the safety data sheet

*Canada*

### Supplier

#### **VWR International LLC**

Street	100 Matsonford Road Radnor Corporate Center, Building One, Suite 200 P. O. Box 6660
Postal code/city	Radnor, PA 19087
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## Manufacturer

### **VWR International Co.**

Street 2360 Argentia Road  
Postal code/city Mississauga, Ontario, L5N 5Z7

### **Emergency telephone**

Telephone +1-613-996-6666 (Canutec, 24 hrs/day, 7 days/week, Canada)

### **Preparation Information**

VWR International - Data Compliance

E-mail sds@vwr.com

## SECTION 2: Hazards identification

### **2.1 Classification of the substance or mixture**

#### **Classification according to Hazardous Products Regulation (SOR/2015-17)**

Hazard classes and hazard categories	Hazard statements
Oxidising solid, category 2	H272
Acute toxicity, category 4, oral	H302
Hazardous to the aquatic environment, chronic, category 1	H410

### **2.2 Label elements**

#### **Labelling in accordance with (SOR/2015-17)**

#### **Hazard pictograms**



**Signal word:** Danger

Hazard statements	
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H410	Very toxic to aquatic life with long lasting effects.



Precautionary statements	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell.

Other hazards

**Hazards not otherwise classified (HNOC)**

no data available

## SECTION 3: Composition / information on ingredients

### 3.1 Substances

Substance name	Potassium permanganate
Molecular formula	KMnO <sub>4</sub>
Molecular weight	158.03 g/mol
CAS No.	7722-64-7

## SECTION 4: First aid measures

### 4.1 General information

IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

#### After inhalation

Call a POISON CENTER/doctor. Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

#### In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a physician.

#### After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

#### In case of ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting. Give nothing to eat or drink.

### 4.2 Most important symptoms/effects, acute and delayed

no data available

### 4.3 Indication of any immediate medical attention and special treatment needed

no data available





#### 4.4 Self-protection of the first aider

First aider: Pay attention to self-protection!

#### 4.5 Information to physician

no data available

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

The product itself does not burn.

May intensify fire; oxidiser.

Co-ordinate fire-fighting measures to the fire surroundings.

##### Extinguishing media which must not be used for safety reasons

no restriction

#### 5.2 Specific hazards arising from the chemical

In case of fire may be liberated:

Pyrolysis products, toxic

#### 5.3 Advice for firefighters

DO NOT fight fire when fire reaches explosives. In case of fire: Wear self-contained breathing apparatus.

#### 5.4 Additional information

Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale explosion and combustion gases. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen. Use water spray/stream to protect personnel and to cool endangered containers.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid generation of dust.

#### 6.2 Environmental precautions

Do not allow to enter into surface water or drains.

#### 6.3 Methods and material for containment and cleaning up

Spilled product must never be returned to the original container for recycling. Clean contaminated objects and areas thoroughly observing environmental regulations. Collect in closed and suitable containers for disposal.

#### 6.4 Additional information

Clear spills immediately.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Avoid: Inhalation Avoid contact with skin and eyes. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Protect from moisture.





## 7.2 Conditions for safe storage, including any incompatibilities

storage temperature: Ambient temperature

Storage class: 5.1B

Keep container tightly closed in a cool, well-ventilated place. Keep/Store away from combustible materials.

## 7.3 Specific end use(s)

no data available

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

## 8.2 Engineering controls

### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

### Personal protection equipment (PPE)

Wear suitable protective clothing. When handling with chemical substances, protective clothing must be worn.

#### *Eye/face protection*

Eye glasses with side protection

#### *Skin protection*

When handling with chemical substances, protective gloves must be worn. In the case of wanting to use the gloves again, clean them before taking off and air them well. Recommended glove articles

#### By short-term hand contact

Suitable material: NBR (Nitrile rubber)

Thickness of the glove material: 0,12 mm

Breakthrough time (maximum wearing time): > 480 min

#### By long-term hand contact

Suitable material: NBR (Nitrile rubber)

Thickness of the glove material: 0,38 mm

Breakthrough time (maximum wearing time): > 480 min

#### *Respiratory protection*

Respiratory protection necessary at: aerosol or mist formation If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

#### *Additional information*

Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

#### *Environmental exposure controls*

no data available





## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

(a) Appearance	
Physical state:	solid
Color:	dark violet
(b) Odour:	no data available
(c) Odour threshold:	no data available

#### Safety relevant basic data

(d) pH:	7-9 (20 g/l; H <sub>2</sub> O; 20 °C)
(e) Melting point/freezing point:	> 240 °C
(f) Initial boiling point and boiling range:	no data available
(g) Flash point:	no data available
(h) Evaporation rate:	no data available
(i) Flammability (solid, gas):	not applicable
(j) Flammability or explosive limits	
Lower explosion limit:	no data available
Upper explosion limit:	no data available
(k) Vapour pressure:	< 0.01 hPa (20 °C)
(l) Vapour density:	no data available
(m) Relative density:	2.7 g/cm <sup>3</sup> (20 °C)
(n) Solubility(ies)	
Water solubility (g/L):	64 g/l (20 °C)
Soluble (g/L) in Ethanol:	no data available
(o) Partition coefficient: n-octanol/water:	no data available
(p) Auto-ignition temperature:	no data available
(q) Decomposition temperature:	240 °C (1013 hPa)
(r) Viscosity	
Kinematic viscosity:	no data available
Dynamic viscosity:	no data available
(s) Explosive properties:	not applicable
(t) Oxidising properties:	May intensify fire; oxidiser.

### 9.2 Other information

Bulk density:	2.7 g/cm <sup>3</sup> (20 °C)
Refraction index:	no data available
Dissociation constant:	no data available
Surface tension:	no data available
Henry constant:	no data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available





## 10.2 Chemical stability

no data available

## 10.3 Possibility of hazardous reactions

no data available

## 10.4 Conditions to avoid

no data available

## 10.5 Incompatible materials

no data available

## 10.6 Hazardous decomposition products

no data available

## 10.7 Additional information

no data available

# SECTION 11: Toxicological information

## 11.1 Information on toxicological effects

### Acute effects

*Acute oral toxicity:*

LD50: > 750 mg/kg - Rat - (RTECS)

LDLo: > 100 mg/kg - Human - (IUCLID)

*Acute dermal toxicity:*

no data available

*Acute inhalation toxicity:*

no data available

### Irritant and corrosive effects

*Primary irritation to the skin:*

not applicable

*Irritation to eyes:*

not applicable

*Irritation to respiratory tract:*

not applicable





**Respiratory or skin sensitization**

In case of skin contact: not sensitising  
After inhalation: not sensitising

**STOT-single exposure**

not applicable

**STOT-repeated exposure**

not applicable

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

**Carcinogenicity**

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

no data available	ACGIH	IARC	NTP	OSHA

**Germ cell mutagenicity**

No indications of human germ cell mutagenicity exist.

**Reproductive toxicity**

No indications of human reproductive toxicity exist.

**Aspiration hazard**

not applicable

**Other adverse effects**

no data available

**Additional information**

no data available

**SECTION 12: Ecological information**

**12.1 Ecotoxicity**

**Fish toxicity:**

LC50: 1.72 mg/l (96 h) - Marking, L.L., and T.D. Bills 1975. Toxicity of Potassium Permanganate to Fish and its Effectiveness for Detoxifying Antimycin. Trans.Am.Fish.Soc. 104(3):579-583

**Daphnia toxicity:**

EC50: 0.08 mg/l (48 h) - Office of Pesticide Programs 2000. Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)). Environmental Fate and Effects Division, U.S.EPA, Washington, D.C.

**Algae toxicity:**

EC50: 0.45 mg/l (72 h) - Paixao, S.M., L. Silva, A. Fernandez, K. O'Rourke, E. Mendonca, and A. Picado 2008. Performance of a Miniaturized Algal Bioassay in Phytotoxicity Screening. Ecotoxicology 17(3):165-171







**Bacteria toxicity:**  
no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: no data available

### 12.4 Mobility in soil:

no data available

### 12.5 Results of PBT/vPvB assessment

no data available

### 12.6 Other adverse effects

no data available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Appropriate disposal / Product

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product: 160904

#### Appropriate disposal / Package

Dispose according to legislation. Handle contaminated packages in the same way as the substance itself.

#### Additional information

no data available

## SECTION 14: Transport information

### Land transport (DOT)

UN-No.:	1490
Proper Shipping Name:	POTASSIUM PERMANGANATE
Class(es):	5.1
Classification code:	O2
Hazard label(s):	5.1
Packing group:	II
Environmental hazards:	No
Marine pollutant:	No
Special precautions for user:	

### Sea transport (IMDG)

UN-No.:	1490
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Proper Shipping Name: POTASSIUM PERMANGANATE  
Class(es): 5.1  
Classification code:  
Hazard label(s): 5.1  
Packing group: II  
Environmental hazards: No  
MARINE POLLUTANT: no data available  
Special precautions for user:  
Segregation group: 14  
EmS-No. F-H S-Q  
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code  
not relevant





## Air transport (ICAO-TI / IATA-DGR)

UN-No.:	1490
Proper Shipping Name:	POTASSIUM PERMANGANATE
Class(es):	5.1
Classification code:	
Hazard label(s):	5.1
Packing group:	II
Special precautions for user:	

## SECTION 15: Regulatory information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

Domestic Substance List:

## SECTION 16: Other information

### Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygienists

DOT - Department of Transportation

IARC - International Agency for Research on Cancer

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

ICAO-TI - International Civil Aviation Organization-Technical Instructions

IMDG - International Maritime Code for Dangerous Goods

LTV - Long Term Value

NIOSH - National Institute for Occupational Safety and Health

NTP - National Toxicology Program

OSHA - Occupational Safety & Health Administration

PBT - Persistent, Bioaccumulative and Toxic

PEL - Permissible Exposure Limit

STV - Short Term Value

SVHC - Substances of Very High Concern

TLV - Threshold Limit Value

vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road

AGS - Committee on Hazardous Substances (Ausschuss für Gefahrstoffe)

CLP - Regulation on Classification, Labelling and Packaging of Substances and Mixtures

DFG - German Research Foundation (Deutsche Forschungsgemeinschaft)

Gestis - Information system on hazardous substances of the German Social Accident Insurance (Gefahrstoffinformationssystem der Deutschen Gesetzlichen Unfallversicherung)

RID - Regulation concerning the International Carriage of Dangerous Goods by Rail

### Additional information

Indication of changes: general update





*The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guidance. The information in this document is based on the present state knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and his Affiliates shall not be held liable for any damage resulting from handling.*

