

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.03.2018

Page 1 of 9

## Potassium Permanganate

### SECTION 1: Identification

#### Product identifier

**Product name:** Potassium Permanganate

**Product code:** PP1005

#### Recommended use of the product and restriction on use

**Relevant identified uses:** Laboratory Chemicals

**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, Inc.

860 Gitts Run Road

Hanover, PA 17331

1-717-632-1291

#### Emergency telephone number:

**United States**

**ChemTel Inc**

+1(800)255-3924

+1(813)248-0585

### SECTION 2: Hazard(s) identification

#### GHS classification:

Oxidizing solids, category 2

Acute toxicity (oral), category 4

Chronic aquatic hazard, category 1

Acute aquatic hazard, category 1

#### Label elements

##### Hazard pictograms:



**Signal word:** Danger

#### Hazard statements:

H272 May intensify fire; oxidizer

H302 Harmful if swallowed

H410 Very toxic to aquatic life with long lasting effects

H400 Very toxic to aquatic life

#### Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking

P220 Keep/Store away from clothing/combustible materials

P221 Take any precaution to avoid mixing with combustibles

P280 Wear protective gloves/protective clothing/eye protection/face protection

P264 Wash skin thoroughly after handling

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.03.2018

Page 2 of 9

## Potassium Permanganate

P270 Do not eat, drink or smoke when using this product

P273 Avoid release to the environment

P370+P378 In case of fire: Use agents recommended in section 5 for extinction

P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

P391 Collect spillage

P405 Store locked up

P501 Dispose of contents and container as instructed in Section 13

**Hazards not otherwise classified:** None

## SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 7722-64-7	Potassium Permanganate	95

**Additional Information:** None

## 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

If symptoms develop or persist, seek medical attention

#### After swallowing:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

Do not induce vomiting

Rinse mouth and then drink plenty of water

### 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.

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.03.2018

Page 3 of 9

### Potassium Permanganate

#### 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

Will release oxygen when heated, intensifying a fire

##### Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

##### Special precautions:

Carbon monoxide and carbon dioxide may form upon combustion

Heating causes a rise in pressure, risk of bursting and combustion

#### 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:

Wear protective eye wear, gloves and clothing

Sweep or scoop up solid material while minimizing dust generation

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:

Use only with adequate ventilation.

Avoid breathing dust.

Do not eat, drink, smoke or use personal products when handling chemical substances.

##### Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed.

Keep container dry.

Store in a cool, well-ventilated area.

Store away from flammable and combustible materials (paper, wood).

Store away from reducing agents (zinc, alkaline metals, formic acid).

#### SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

##### Occupational Exposure limit values:

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.03.2018

Page 4 of 9

### Potassium Permanganate

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Potassium Permanganate	7722-64-7	ACGIH TLV 0.02 mg/m <sup>3</sup> , as Mn (respirable fraction)
	Potassium Permanganate	7722-64-7	ACGIH TLV 0.1 mg/m <sup>3</sup> , as Mn (inhalable fraction)
United States (OSHA)	Potassium Permanganate	7722-64-7	OSHA PEL C 5 mg/m <sup>3</sup> , as Mn

#### Biological limit values:

No biological exposure limits noted for the ingredient(s).

#### Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls.

Biological monitoring may also be appropriate for some substances.

#### 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:

Safety goggles or glasses, or appropriate eye protection.

##### Skin and body protection:

Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

##### Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

#### General hygienic measures:

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and at the end of work.

Wash contaminated clothing before reuse.

### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

Appearance	Dark purple-bronze crystals.
Odor	Odorless.
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	24°C
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Not determined or not available.
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.03.2018

Page 5 of 9

### Potassium Permanganate

Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	2.70 g/cm <sup>3</sup>
Solubilities	6.4g/100mL @ 20°C
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

#### Other information

Molecular weight	158.03
Specific Gravity	2.70 g/cm <sup>3</sup>

### SECTION 10: Stability and reactivity

#### Reactivity:

Does not react under normal conditions of use and storage.

#### Chemical stability:

No decomposition if used and stored according to specifications.

#### Possibility of hazardous reactions:

None under normal conditions of use and storage.

#### Conditions to avoid:

Dust generation, temperatures above 150°C. Store away from strong acids or bases.

#### Incompatible materials:

Strong bases, reducing agents, strong acids, formaldehyde, peroxides, arsenites, mercurous salts, hypophosphites, combustible organics, sulfites, bromide, hydrochloric acid, charcoal, iodides, metal powders, ethylene glycol, organic materials, some metals, ferrous salts.

#### Hazardous decomposition products:

Carbon oxides (CO, CO<sub>2</sub>). Oxygen, oxides of potassium and manganese.

### SECTION 11: Toxicological information

#### Acute toxicity

**Assessment:** Harmful if swallowed

**Product data:** No data available.

**Substance data:**

Name	Route	Result
Potassium Permanganate	oral	LD50 Oral - Rat - 1090 mg/kg

#### 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

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.03.2018

Page 6 of 9

### Potassium Permanganate

**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.

#### Aspiration 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:** Very toxic to aquatic life

**Product data:** No data available.

**Substance data:**

Name	Result
Potassium Permanganate	EC50 - Daphnia magna - 84 ug/L - 48 h
	LC50 - Oncorhynchus mykiss - 3.9 mg/L - 24h

#### Chronic (long-term) toxicity

**Product data:** No data available.

## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.03.2018

Page 7 of 9

### Potassium Permanganate

**Substance data:** No data available.

#### 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

### SECTION 14: Transport information

#### United States Transportation of dangerous goods (49 CFR DOT)

UN number	1490
UN proper shipping name	POTASSIUM PERMANGANATE
UN transport hazard class(es)	5.1 
Packing group	II
Environmental hazards	None
Special precautions for user	None
Reportable quantity	100Lb
Excepted quantities	30 g/30 ml
Passenger air/rail	5KG
Cargo aircraft only	25KG
Stowage category	D

#### International Maritime Dangerous Goods (IMDG)

UN number	1490
UN proper shipping name	POTASSIUM PERMANGANATE
UN transport hazard class(es)	5.1 
Packing group	II
Environmental hazards	None
Special precautions for user	None
Excepted quantities	30 g/30 ml
Limited quantity	1KG

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


## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.03.2018

Page 8 of 9

### Potassium Permanganate

UN number	1490
UN proper shipping name	POTASSIUM PERMANGANATE
UN transport hazard class(es)	5.1 
Packing group	II
Environmental hazards	None
Special precautions for user	None
ERG code	140
Excepted quantities	30 g/30 ml
Passenger and cargo	5KG
Cargo aircraft only	25KG
Limited quantity	1KG

### SECTION 15: Regulatory information

#### United States regulations

##### Inventory listing (TSCA):

7722-64-7	Potassium Permanganate	Listed
-----------	------------------------	--------

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

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

##### SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

**SARA Section 302 extremely hazardous substances:** Not determined.

##### SARA Section 313 toxic chemicals:

7722-64-7	Potassium Permanganate	Listed
-----------	------------------------	--------

##### CERCLA:

7722-64-7	Potassium Permanganate	Listed	100
-----------	------------------------	--------	-----

**RCRA:** Not determined.

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

##### Massachusetts Right to Know:

7722-64-7	Potassium Permanganate	Listed
-----------	------------------------	--------

##### New Jersey Right to Know:

7722-64-7	Potassium Permanganate	Listed
-----------	------------------------	--------

##### New York Right to Know:

7722-64-7	Potassium Permanganate	Listed
-----------	------------------------	--------

##### Pennsylvania Right to Know:

7722-64-7	Potassium Permanganate	Listed
-----------	------------------------	--------

**California Proposition 65:** Not determined.

### SECTION 16: Other information

**Abbreviations and Acronyms:** None

#### Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in



## Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.03.2018

Page 9 of 9

### Potassium Permanganate

this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal 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, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

Initial preparation date: 02.03.2018

**End of Safety Data Sheet**