

1. IDENTIFICATION

Product Identifier

Product Name POTASSIUM PERMANGANATE SOLUTION
Chemical Name Potassium permanganate solution

Recommended use of the chemical and restrictions on use

Recommended use Iron sulfide scale mitigation, odor control
Restrictions on use For industrial use only

Supplier details

West Penetone Inc.
 11411-160 Street
 Edmonton, AB,
 T5M3T7
 Tel: 780-454-3919

Emergency Telephone Number

Main office – (780)-454-3919, 8:00 AM to 4:30 PM MST

2. HAZARDS IDENTIFICATION

Classification

Hazardous to the aquatic environment, acute hazard	Category 2
Hazardous to the aquatic environment, long-term hazard	Category 2

Label Elements

WARNING

Hazard Statements

Toxic to aquatic life with long lasting effects



Precautionary Statements - Prevention

Avoid release to the environment.

Precautionary Statements - Response

Collect spillage.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant according to local, provincial/federal regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Potassium permanganate	7722-64-7	4

4. FIRST AID MEASURES

Ingestion	Rinse mouth. Do not induce vomiting. If symptoms occur, get medical advice/attention.
Skin contact	Wash with plenty of water. If skin irritation occurs, get medical advice/attention. Take off contaminated clothing and wash before reuse.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms occur, get medical advice/attention.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs, get medical advice/attention.

Most important symptoms and effects, both acute and delayed

None reasonable foreseen.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

None.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed including oxides of potassium and manganese. Do not allow run-off from firefighting to enter drains or water courses.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Use appropriate containment to avoid environmental contamination.

Environmental Precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Contain and solidify with inert absorbent material. Keep in suitable, closed containers for disposal. For large spills, stop flow of material, prevent product from entering drains, and pump off product where this is without risk and possible. Proceed as above.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling	Avoid contact with skin, eyes, and clothing. When using, do not eat, drink, or smoke. Use recommended personal protective equipment.
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Conditions for safe storage, including any incompatibilities

Storage	Keep containers tightly closed away from direct sunlight in a dry, cool, and well-ventilated place.
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Incompatible Materials	Strong reducing agents and bases.
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8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Control parameters**

Chemical Name	ACGIH TWA	OSHA PEL	NIOSH IDLH
Potassium permanganate 7722-64-7	0.10 mg/m ³ inhalable fraction 0.02 mg/m ³ respirable fraction	5 mg/m ³ ceiling	STEL: 3 mg/m ³ fume TWA: 1 mg/m ³ fume IDLH: 500 mg/m ³

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas. Eyewash and shower facilities must be made available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face Protection Safety glasses with side shields or goggles. Wear face shield where risk of splashing exists.

Skin and body protection Wear protective gloves and protective clothing.

Respiratory Protection Wear respiratory protection in case of vapor/aerosol release.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES**APPEARANCE:**

Purple liquid

ODOR:

Odorless

ODOR THRESHOLD:

Not applicable

pH:

Neutral

MELTING POINT / FREEZING POINT:

Approx. 0°C (32°F)

BOILING POINT/BOILING RANGE:

Approx. 100°C (212°F)

FLASH POINT:

None

EVAPORATION RATE, water = 1:

1

FLAMMABILITY (SOLID, GAS):

Not applicable

VAPOR PRESSURE, mm Hg AT 20°C (68°F):

14

VAPOR DENSITY (Air = 1):

0.7

RELATIVE DENSITY AT 20°C (68°F):

1.010-1.020

SOLUBILITY IN WATER:

Complete

PARTITION COEFFICIENT, N-OCTANOL/WATER:

Not applicable for inorganic substances

AUTO-IGNITION TEMPERATURE:

None

DECOMPOSITION TEMPERATURE:

Not available

VISCOSITY:

Not available

FLAMMABLE LIMITS:**UPPER:** Not applicable **LOWER:** Not applicable

10. STABILITY AND REACTIVITY

Reactivity

Reactive.

Chemical Stability

Stable under normal conditions of storage and use.

Possibility of hazardous reactions

Contact with combustible materials may cause fire.

Conditions to Avoid

Extreme temperatures $\geq 135^{\circ}\text{C}$ ($\geq 275^{\circ}\text{F}$). Store away from incompatible materials.

Incompatible Materials

Strong reducing agents and bases, combustible materials.

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Material liberates chlorine in contact with hydrochloric acid. Thermal decompositions can lead to release of toxic metal fumes such as oxides of potassium and manganese.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
potassium permanganate 7722-64-7	525-1090 mg/kg (rat)	Not listed	Not listed

Information on likely sources of exposure

Serious eye damage/irritation	May cause eye irritation.
Skin corrosion/irritation	May cause skin irritation.
Ingestion	Under the intended modes of use, expected to be a low ingestion hazard.
Inhalation	Under the intended modes of use, expected to be a low inhalation hazard.

Delayed and immediate effects and also chronic effects from short and long-term exposure

Respiratory or skin sensitization	Not a sensitizer.
Germ cell mutagenicity	None known.
Carcinogenicity	No listed carcinogens.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT- repeated exposure	No information available.
Aspiration Hazard	None.

Symptoms related to the physical, chemical and toxicological characteristics

May cause irritation to skin, eyes, and mucous membranes.

12. ECOLOGICAL INFORMATION

Ecotoxicity

If available, ecotoxicity values of individual components are shown below.

Chemical Name	Fish	Waterflea	Algae
potassium permanganate 7722-64-7	0.261 mg/L: 96 h ictalurus punctatus LC50 1.22 mg/L: 96 h oncorhynchus mykiss	0.235 mg/L: 24 h daphnia magna EC50 0.5 mg/L: 96 h crustacean EC50	10 mg/L: 4 h chlorella sp.

Persistence and degradability

May persist.

Bioaccumulative potential

Does not significantly accumulate in organisms.

Mobility in soil

No information available

Other adverse effects

Do not release untreated into natural waters. No other adverse environmental effects are expected.

13. DISPOSAL CONSIDERATIONS**Waste Disposal Method**

Dispose of in accordance with local regulations.

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

UN Number:	3082
UN Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S. (potassium permanganate solution)
Transport Hazard Class(es)	
Class:	TDG: 9
	US DOT: 9
	IMDG: 9
Label(s):	9
Packing Group:	III
Marine Pollutant:	Yes
Special precautions for user:	None established
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not determined

15. REGULATORY INFORMATION

Canada (DSL/NDSL)

All ingredients contained in this product are in compliance with the Canadian Environmental Protection Act and are listed on the DSL or are exempt.

United States (TSCA)

All ingredients contained in this product are listed on the TSCA inventory or are exempt.

HMIS Information:

Health:	1
Flammability:	0
Reactivity:	0

16. OTHER INFORMATION**Preparation Date**

22 April 2016

Revision Date

3 July 2025

Revision Note**Revision 2** - Modifications to Section 1**Disclaimer**

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of SDS