

## 1. IDENTIFICATION

**Product Identifier**

**Product Name** POTASSIUM PERMANGANATE SOLUTION

**Recommended use of the chemical and restrictions on use**

**Recommended use** Iron sulfide remediation

**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**

Canutec (613)-996-6666

## 2. HAZARDS IDENTIFICATION

**Classification**

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Hazardous to the aquatic environment, acute hazard	Category 2
Hazardous to the aquatic environment, long-term hazard	Category 2

**Label Elements**

**DANGER**

**Hazard Statements**

Causes skin irritation  
Causes serious eye damage  
Toxic to aquatic life  
Toxic to aquatic life with long lasting effects



**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.  
IF ON SKIN: Wash with plenty of water. If skin irritation occurs, get medical advice/attention. Take off contaminated clothing and wash it before re-use.  
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**

<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician
<b>Skin contact</b>	Wash with plenty of water. If skin irritation occurs, get medical advice/attention. Take off contaminated clothing and wash it before re-use.
<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if symptoms develop or persist.
<b>Ingestion</b>	Rinse mouth. Remove person to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed by medical personnel. Call a POISON CENTER or doctor/physician if you feel unwell.

**Most important symptoms and effects, both acute and delayed**

Contact with eyes may cause serious eye damage leading to irritation, discomfort or pain, excess blinking and tear production with marked redness and swelling of the conjunctiva, blurred vision and possible corneal injury. Contact with skin may cause irritation with local redness. Material is destructive to the tissue of the mucous membranes and upper respiratory tract and may be harmful if inhaled. Material may be harmful if swallowed.

**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.

**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**

Avoid contact with skin, eyes and clothing. 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. Following product recovery, flush area with water. 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. Avoid inhalation of vapor or mist.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep containers tightly closed away from direct sunlight in a dry, cool and well-ventilated place, away from incompatible materials.

**Incompatible Materials** Organic and combustible materials, strong reducing agents and acids, peroxides, alcohols, nitrates, perchlorates, hypophosphites, hyposulfites, sulphites, oxalates, halides, and hydrides.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control parameters**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
potassium permanganate 7722-64-7	TWA: 0.2 mg/m <sup>3</sup>	Not listed	Not listed

**Appropriate engineering controls**

**Engineering Controls** Eye wash 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.

**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 :**

Violet liquid

**ODOR**

Odorless

**ODOR THRESHOLD :**

Not applicable

**pH :**

Neutral

**MELTING POINT / FREEZING POINT :**

0°C

**BOILING POINT/BOILING RANGE :**

100°C

**FLASH POINT :**

None

**EVAPORATION RATE, water = 1 :**

1

**FLAMMABILITY (SOLID, GAS):**

Not applicable

**VAPOR PRESSURE, mm Hg AT 20°C :**

Not applicable

**VAPOR DENSITY (Air = 1) :**

Not applicable

**RELATIVE DENSITY AT 20°C:**

1.010-1.020

**SOLUBILITY IN WATER :**

Complete

**PARTITION COEFFICIENT, N-OCTANOL/WATER :**

Not available

**AUTO-IGNITION TEMPERATURE :**

None

**DECOMPOSITION TEMPERATURE:**

Not available

**VISCOSITY:**

Not available

**FLAMMABLE LIMITS :**

**UPPER:** Not applicable **LOWER :** Not applicable

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive.

### Chemical Stability

Stable under normal conditions.

### Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

### Conditions to Avoid

Extreme temperatures. Store away from incompatible materials.

### Incompatible Materials

Organic and combustible materials, strong reducing agents and acids, peroxides, alcohols, nitrates, perchlorates, hypophosphites, hyposulfites, sulphites, oxalates, halides, and hydrides.

### 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. Explosion hazards may occur when in contact with sulphuric acid, peroxides, nitric acid, alcohols, arsenic, phosphorous, sulphur, titanium and aldehydes. 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 mg/kg (rat)	Not listed	Not listed

### Information on likely sources of exposure

<b>Serious eye damage/irritation</b>	Causes serious eye damage.
<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.
<b>Inhalation</b>	Expected to be a low inhalation hazard.

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

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

### Symptoms related to the physical, chemical and toxicological characteristics

May cause serious eye damage. Skin irritation.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

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

Chemical Name	Fish	Waterflea	Algae
potassium permanganate 7722-64-7	0.1 mg/L: 96 h ictalurus punctatus LC50	0.06 mg/L: 48 h daphnia magna EC50	Not available

**Persistence and degradability**

Not applicable to inorganic substances.

**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****TDG classification**

UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (potassium permanganate solution), Class 9, PG III

**15. REGULATORY INFORMATION**

All ingredients are listed on the DSL

**16. OTHER INFORMATION****Preparation Date**

22 April, 2016

**Revision Date**

not applicable

**Revision Note**

not applicable

**Disclaimer**

The information provided on this MSDS 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**