



Section 1. Product and Company Identification

**Product Name** Potassium Permanganate  
**CAS Number** 7722-64-7

**Parchem - fine & specialty chemicals**

**415 Huguenot Street**  
**New Rochelle, NY 10801**

 **(914) 654-6800**  **(914) 654-6899**

 **parchem.com**  **info@parchem.com**

EMERGENCY RESPONSE NUMBER  
CHEMTEL

Toll Free US & Canada: 1 (800) 255-3924

All other Origins: 1 (813) 248-0585

Collect Calls Accepted

Section 2. Hazards Identification

**Classification of the substance or mixture**

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Oxidizing solids (Category 2), H272  
Acute toxicity, Oral (Category 4), H302  
Skin corrosion (Category 1B), H314  
Serious eye damage (Category 1), H318  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410

**GHS Label Elements**

**Pictograms:**



**Signal word:** DANGER

**Hazard and precautionary statements**

**Hazard Statements**

H272 May intensify fire; oxidizer.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements**

P210 Keep away from heat.  
P220 Keep/Store away from clothing/ combustible materials.  
P221 Take any precaution to avoid mixing with combustibles.



- P260 Do not breathe dust or mist.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
- P305 + P351 + P338 + P310 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.
- P363 Wash contaminated clothing before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- P391 Collect spillage.
- P405 Store locked up.
- P501 Dispose of contents/ container to an approved waste disposal plant.

**Hazards not Otherwise Classified (HNOC) or not covered by GHS:** None

Section 3. Composition / Information on Ingredients

**Common Name** Potassium Permanganate  
**Formula**  $KMnO_4$   
**CAS Number** 7722-64-7

COMPONENT	CAS NUMBER	CONCENTRATION
Potassium Permanganate	7722-64-7	≤ 100%

Section 4. First Aid Measures

**Description of First-aid Measures**

**General Advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Skin Contact:** Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

**Eye Contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed:** The most important known symptoms and effects are described in the labelling and/or in section 11.

**Indication of any immediate medical attention and special treatment needed:** No data available

#### Section 5. Firefighting Measures

##### **Extinguishing Media**

**Suitable Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

**Special hazards arising from the substance or mixture:** Potassium oxides, Manganese/manganese oxides

**Advice for Firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

**Further Information:** Use water spray to cool unopened containers.

#### Section 6. Accidental Release Measures

**Personal precautions, protective equipment, and emergency procedures:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

**Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up:** Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

**Reference to other sections:** For disposal see section 13.

#### Section 7. Handling and Storage

**Precautions for safe handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition. For precautions see section 3.

**Conditions for safe storage, including any incompatibilities:** Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): Oxidizing hazardous materials.

Section 8. Exposure Controls / Personal Protection

**Control Parameters**  
**Components with Workplace Control Parameters**

Component	CAS Number	Value	Control Parameters	Basis
Potassium Permanganate	7722-64-7	C	5 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
	Remarks	Ceiling limit is to be determined from breathing-zone air samples.		
		C	5 mg/m <sup>3</sup>	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	1 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
		ST	3 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
		TWA	0.1 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
		Central Nervous System impairment - 2013 Adoption : Varies		
		TWA	0.02 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
		Central Nervous System impairment - 2013 Adoption : Varies		

**Exposure Controls**

**Appropriate Engineering Controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal Protective Equipment**

**Eye/Face Protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin Protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be

evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection:** Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory Protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of Environmental Exposure:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

#### Section 9. Physical and Chemical Properties

##### Information on basic physical and chemical properties

**Form:** Crystalline

**Color:** Dark violet

**Odor:** Odorless

**Odor Threshold:** No data available

**pH (20°C/68°F):** 7.2 - 9.7 at 20 g/L

**Melting/Freezing Point:** > 240°C (> 464°F) - Decomposes on heating.

**Initial Boiling Point and Boiling Range:** No data available

**Flash Point:** Not applicable

**Evaporation Rate:** No data available

**Flammability (Solid, Gas):** No data available

**Upper/Lower Flammability or Explosive Limits:** No data available

**Vapor Pressure:** No data available

**Vapor Density:** No data available

**Relative Density:** 2.710 g/cm<sup>3</sup>

**Water Solubility:** 28.3 g/L at 0°C (32°F)

**Water Solubility:** 65.1 g/L at 20°C (68°F)

**Water Solubility:** 125 g/L at 40°C (104°F)

**Water Solubility:** 224 g/L at 60°C (140°F)

**Partition Coefficient (n-Octanol/Water):** No data available

**Auto-ignition Temperature:** No data available

**Decomposition Temperature:** > 240°C (> 464°F)

**Viscosity:** No data available

**Explosive Properties:** No data available

**Oxidizing Properties:** The substance or mixture is classified as oxidizing with the category 2.



**Other Safety Information:** No data available

Section 10. Stability and Reactivity

**Reactivity:** No data available

**Chemical Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** No data available

**Conditions to Avoid:** No data available

**Incompatible Materials:** Strong reducing agents, Powdered metals, Peroxides, Zinc, Copper, Alcohols, Hydrogen fluoride, Acids, Sulfuric acid

**Hazardous Decomposition Products:** Other decomposition products - No data available  
In the event of fire: see section 5

Section 11. Toxicological Information

**Information on Toxicological Effects**

**Acute Toxicity**

LD50 Oral - Rat - 1,090 mg/kg

**Inhalation:** No data available

**Dermal:** No data available

**Skin Corrosion/Irritation**

Skin - Rabbit

**Result:** Corrosive - 4h

**Serious Eye Damage/Eye Irritation:** No data available

**Respiratory or Skin Sensitization**

Maximization Test (GPMT) - Guinea pig

**Result:** Does not cause skin sensitization. (OECD Test Guideline 406)

**Germ Cell Mutagenicity:** No data available

**Carcinogenicity**

**IARC:** No component of this product, present at levels greater than or equal to 0.1%, is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product, present at levels greater than or equal to 0.1%, is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by OSHA.



**Reproductive toxicity:** No data available

**Specific Target Organ Toxicity - Single Exposure:** No data available

**Specific Target Organ Toxicity - Repeated Exposure:** No data available

**Aspiration Hazard:** No data available

#### Additional Information

**RTECS:** SD6475000

Contact with skin can cause: Oedema, Necrosis, Effects due to ingestion may include: methemoglobinemia, psychological disturbances, Vomiting, Nausea, Diarrhoea

#### Section 12. Ecological Information

##### Toxicity

Toxicity to Fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 0.3 - 0.6 mg/L - 96.0 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - *Daphnia magna* (Water flea) - 0.084 mg/L - 48 h

**Persistence and Degradability:** The methods for determining biodegradability are not applicable to inorganic substances.

##### Bioaccumulative Potential

Bioaccumulation Lamellibranchia (mussel)

Bioconcentration Factor (BCF): < 10,000

Remarks: Can accumulate in aquatic organisms.

**Mobility in Soil:** No data available

**Results of PBT and vPvB Assessment:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**Other Adverse Effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

#### Section 13. Disposal Considerations

**Waste Treatment Methods:** Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

#### Section 14. Transport Information

##### DOT (US)

**UN Number:** 1490

**Class:** 5.1

**Packing Group:** II

**Proper Shipping Name:** Potassium permanganate



**Reportable Quantity (RQ):** 100 lbs  
**Poison Inhalation Hazard:** No

**IMDG**

**UN Number:** 1490  
**Class:** 5.1  
**Packing Group:** II  
**EMS-No:** F-H, S-Q  
**Proper Shipping Name:** Potassium Permanganate  
**Marine Pollutant:** yes

**IATA**

**UN Number:** 1490  
**Class:** 5.1  
**Packing Group:** II  
**Proper Shipping Name:** Potassium permanganate

Section 15. Regulatory Information

**SARA 302 Components:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313:  
Potassium Permanganate  
CAS-No. 7722-64-7  
Revision Date: 1993-04-24

**SARA 311/312 Hazards**

Reactivity Hazard, Acute Health Hazard

**Massachusetts Right to Know Components**

Potassium Permanganate (CAS-No. 7722-64-7)  
Revision Date: 1993-04-24

**Pennsylvania Right to Know Components**

Potassium Permanganate (CAS-No. 7722-64-7)  
Revision Date 1993-04-24

**New Jersey Right to Know Components**

Potassium Permanganate (CAS-No. 7722-64-7)  
Revision Date: 1993-04-24

**California Prop. 65 Components:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.





**HMIS Rating**

**Health:** 3

**Flammability:** 0

**Reactivity:** 2

**NFPA Rating**

**Health Hazard:** 3

**Fire Hazard:** 0

**Reactivity Hazard:** 2

**Special Hazard:** OX

**DEA Listing:** This product is a DEA List 2 Chemical.

**DEA Chemical Code:** 6579

Section 16. Other Information

**Disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our 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.

REVISION DATE: 6/21/2016

