

## 1. Product and Company Identification

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Product Name **Potassium Permanganate 1 Gram Capsule**  
Part Number **[RXSOL-60-6134-050](#)**

**Chemical Formula: KMnO4**

### Company Details:

RX MARINE INTERNATIONAL  
105, A wing , BSEL , TECH PARK.  
VASHI ,NEW BOMBAY 400703 INDIA

Phone +91 22 65113333/5555 / 9999 / 27815540-42  
Fax +91 22 2781 1318AOH :0091 9821214367  
Email [mail@rxmarine.com](mailto:mail@rxmarine.com); [123@rxmarine.com](mailto:123@rxmarine.com)

## 2. Composition / Information on ingredients

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Chemical Name	Concentration	CAS Number	EC Number	R Phrases*	Sym Xn.
Potassium Permanganate	99-100%	7722-64-7	231-760-3	50/5	Xn.

\*See Section 16

## 3. Hazards Identification

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Physical hazards	Not Classified
Health hazards	Not Classified
Environmental Hazards	Aquatic Chronic 2 - H411
Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous contact (permeator). Possibly corrosive to eyes and skin. The amount of tissue damage depends on length of contact result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure damage, choking, unconsciousness or death. Prolonged exposure may result in skin burns and ulcerations. Over-exposure may cause respiratory irritation.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung

## 4. First Aid Measures

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Contact with skin	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean skin. Get medical attention immediately.
Contact with eyes	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a shirt or waistband.

Inhalation  
General

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be fatal if inhaled. The person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or irritant should seek immediate medical attention.

## 5. Fire-fighting Measures

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Flammability of the Product	:	Non-flammable
Auto-Ignition Temperature	:	Not applicable.
Flash Points	:	Not applicable.
Flammable Limits	:	Not applicable.
Products of Combustion	:	Not applicable.
Fire Hazards in Presence of Various Substances	:	organic materials, metals, combustibles
Explosion Hazards in Presence of Various Substances	:	Risks of explosion of the product in contact with organic materials, of impact: Not available. Risks of explosion in presence of static discharge: Not available. Risks of explosion in presence of organic materials, of impact: Not available.
Fire Fighting Media and Instructions	:	Not applicable.
Special Remarks on Fire Hazards	:	Spontaneously flammable on contact with Potassium Permanganate being a strong oxidizing agent. When solid tube ignited the tube. When solid in contact with solid potassium permanganate produced immediately a white flame. Potassium permanganate decomposes hydrogen trisulfide and sulfur dioxide is liberated to ignite the trisulfide. Potassium permanganate and solid potassium permanganate are strong oxidizing agents and metals ignite.
Special Remarks on Explosion Hazards	:	Take care in handling as explosive in contact with organic or other reducing agents either in solution or in dry state. Potassium permanganate + sulfuric acid or hydrogen peroxide + acetic acid or acetic anhydride + potassium permanganate is not kept cold. Potassium permanganates come on contact with carbon disulfide, diethyl ether, ethyl alcohol, etc. matter. Contact with glycerol may cause explosion of potassium permanganate explosive in contact with phosphorous. A mixture of potassium permanganate + ammonium nitrate exploded after 7 hrs. later. Addition of dimethylformamide to give a white solid explosion after 5 min. During addition of the concentrated acid to potassium permanganate, a sharp explosion may occur.

## 6. Accidental Release Measures

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Personal Precautions

Wear protective clothing as per section 8.

Environmental Precautions

Avoid discharge into drains or watercourses or onto the ground. Contain spillage with sand, earth or other suitable absorbent material. The product contains substances which are water-soluble and may spread in water systems. The product contains substances which may spread in the atmosphere.

Immediate Actions

Shut off source of leak if safe to do so.

Small Spill

Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill

Oxidizing material. Corrosive solid. Stop leak if without risk. Do not get water inside container. Avoid contact with combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Use water to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

## 7. Handling and Storage

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### Handling

Keep away from heat. Keep away from sources of ignition. Keep away from combustible material. Do not ingest. Do not inhale. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately. See the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as organic materials, metals, and acids.

### Storage

Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalies, reducing agents, and combustibles. See NFPA 43A, Code for the Storage of Liquid and Solid Oxidizers.

## 8. Exposure controls and personal protection

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### Engineering Control

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below recommended limits.

### Personal Protection

Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent.

### Personal Protection in case of Large Spill

Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self contained breathing apparatus should be used for the inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling.

### Exposure Limits

TWA: 5 Consult local authorities for acceptable exposure limits.

## 9. Physical and chemical properties

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Odour	:	Odourless
Taste	:	Sweetish, astringent.
Appearance	:	Solid/Powder/Crystal
Molecular Weight	:	158.03 g/mole
pH (1% soln/water)	:	Not available
Boiling Point	:	Not available
Melting Point	:	Decomposes.
Critical Temperature	:	Not available.
Specific Gravity	:	2.7 @ 15 C (Water = 1)
Vapor Pressure	:	Not available.
Vapor Density	:	Not available.
Volatility	:	Not available.
Odor Threshold	:	Not available.
Water/Oil Coeff	:	Not available.
Ionicity (in Water):	:	Not available.
Solubility	:	Easily soluble in methanol, acetone, ethanol, water, hot water. Soluble in Sulfuric acid.

## 10. Stability and reactivity

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Stability	:	The product is stable.
Instability Temperature	:	Not available
Conditions of Instability	:	Incompatible materials
Incompatibility with various substances	:	Highly reactive with organic materials, reducing agents, combustibles, acids, bases, and oxidizing agents.
Corrosivity	:	Not available.
Special Remarks on Reactivity	:	It is a powerful oxidizing agent. It reacts with reducing agents, acids, formaldehyde, nitrate, dimethylformamide, glycols, and other organic materials, alcohols, arsenites, bromides, and iodides.



Other Regulations	<p>Potassium permanganate Massachusetts spill list: Potassium permanganate New Jersey: Potassium permanganate New York: Potassium permanganate Louisiana spill reporting: Potassium permanganate California Director's list of Hazardous Materials: Potassium permanganate</p> <p><b>OSHA:</b> Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is listed in the Inventory of Existing Commercial Chemical Substances.</p> <p><b>Other Classifications:</b></p> <p><b>WHMIS (Canada):</b></p> <p><b>CLASS C:</b> Oxidizing material. <b>CLASS E:</b> Corrosive solid.</p> <p><b>DSCL (EEC):</b> R8- Contact with combustible material may cause fire. R22- Harmful if swallowed. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S60- This material and its container must be disposed of as hazardous waste. S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.</p>
HMIS (U.S.A.):	<p><b>Health Hazard: 2</b></p> <p><b>Fire Hazard: 0</b></p> <p><b>Reactivity: 0</b></p> <p><b>Personal Protection: j</b></p>
National Fire Protection Association	<p><b>Health: 1</b></p> <p><b>Flammability: 0</b></p> <p><b>Reactivity: 0</b></p> <p><b>Specific hazard: NA</b></p>
Protective Equipment:	<p>Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Use a respirator when ventilation is inadequate. Splash goggles.</p>

## 16. Other information

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