

1. Product and Company Identification

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Product Name [Potassium Permanganate](#)
Part Number [RXSOL-60-6109-025](#)

Chemical Formula: KMnO₄

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / Information on ingredients

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Chemical Name	Concentration	CAS Number	EC Number	R Phrases*	Sym
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 collar, waistband
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
General	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

the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or requires 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, combu
Explosion Hazards in Presence of Various Substances	:	Risks of explosion of the produc impact: Not available. Risks of presence of static discharge: N presence of organic materials, of
Fire Fighting Media and Instructions	:	Not applicable.
Special Remarks on Fire Hazards	:	Spontaneously flammable on co Potassium Permanganate being tube ignited the tube. When sol into contact with solid potassi produced immediately a with fla decomposes hydrogen trisulfide s is liberated to ignite the trisulfide and solid potassium permangan metals ignite.
Special Remarks on Explosion Hazards	:	Take care in handling as explosio in contact with organic or other r either in solution or in dry state sulfuric acid or hydrogen peroxi + acetic acid or acetic ac permanganate is not kept cold. permanganates come on cont disulfide, diethyl ether, ethyl al matter. Contact with glycerol may of potassium permanganate expl with phosphorous. A mixt permanganate + ammonium n explosion 7 hrs. later. Addition o dimethylformamide to give a explosion after 5 min. During a addition of the concentrated acid potassium permanganate, a shar occasion.

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 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 material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Use reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal if 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 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 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, 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.
Corrosivity	:	Not available.
Special Remarks on Reactivity	:	It is a powerful oxidizing agent. It reacts with reducing agents, acids, formaldehyde, nitrate, dimethylformamide, glycols, organic materials, alcohols, arsenites, bromides, and other organic substances.

Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada):

CLASS C: Oxidizing material. **CLASS E:** Corrosive solid.

DSCL (EEC): 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.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 0

Reactivity: 0

Personal Protection: j

National Fire Protection Association

Health: 1

Flammability: 0

Reactivity: 0

Specific hazard: NA

Protective Equipment:

Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent respirator when ventilation is inadequate. Splash goggles.

16. Other information

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*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information. In the event of any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, or consequential damages arising, even if **Rx Marine International** has been advised of the possibility of such damages.*

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