1. Product and Company Identifaction

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Product Name
Potassium Permanganate
Part Number

RXSOL-60-6109-005

Chemical Formula: KMnO4

Company Details:

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

Stock Point: Mumbai, Kandla, Kolkata, Chennai, Visakhapatnam, Fujairah.

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2. Composition / Information on ingredients

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Chemical NameConcentrationCAS NumberEC NumberR Phrases*SynPotassium Permanganate99-100%7722-64-7231-760-350/5Xn.

*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 hazardo

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. Repeate 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 of

Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean sl

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

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 unco

large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a

waistband

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get m
General Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistbar

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistbard 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

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 productimpact: Not available. Risks of presence of static discharge: It presence of organic materials, of
Fire Fighting Media and Instructions	:	Not applicable.
Special Remarks on Fire Hazards		Spontaneously flammable on co Potassium Permanganate being of tube ignited the tube. When soli into contact with solid potassi

	i. a	produced immediately a with flat decomposes hydrogen trisulfides s liberated to ignite the trisulfide and solid potassium permangana metals ignite.
Special Remarks on Explosion Hazards	i e e s s d d e e d e e e e e e e e e e e	Take care in handling as explosion contact with organic or other relation in contact with organic or other relation in solution or in dry state sulfuric acid or hydrogen peroxider acetic acid or acetic at permanganate is not kept cold. Dermanganates come on contact disulfide, diethyl ether, ethyl almatter. Contact with glycero may of potassium permanganate explosion permanganate explosion of hrs. later. Addition of dimethylformamide to give a explosion after 5 min. During a addition of the concentrated acid potassium permanganate, a sharpoccasion.

6. Accidental Release Measures

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Personal Precautions

Environmental Precautions

Wear protective clothing as per section 8.

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

substances which may spread in the atmosphere

Immediate Actions

Small Spill Large Spill Shut off source of leak if safe to do so.

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

Oxidizing material. Corrosive solid. Stop leak if without risk. Do not get water inside container. Avoid contact w material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. U reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on dispos 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 In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immedia container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as organic materials, me Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalies, recombustibles. See NFPA 43A, Code for the Storage of Liquid and Solid Oxidizers.

8. Exposure controls and personal protection

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Engineering Control

Personal Protection
Personal Protection in case of Large
Spill
Exposure Limits

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below reco limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivale Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self contained breathing apparatus should inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling TWA: 5 Consult local authorities for acceptable exposure limits.

9. Physical and chemical properties

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Odour :	Odourless
Taste :	Sweetish, astringent.
Appereance :	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, acetono water, hot water. Soluble in Sulfur

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 Reactive with reducing agents, combu
Corrosivity	:	Not available.
Special Remarks on Reactivity		It is a powerful oxidizing agent reducing agents, acids, formale nitrate, dimethylformamide, glycomaterials, alcohols, arsenites, bromid organic substances, ferrous or mercurous salts, hypophe sulfites, peroxides, oxalates, ethylen salts in air oxidize the toxic sulfur of sulfur trioxide. Can react violent powders, ammonia, ammonium salts finely divided organic compounds (reliquids, acids, sulfur.
Polymerization	:	Will not occur.

11. Toxicological information

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Routes of Entry Absorbed through skin. Eye contact. Inhalation. Ingestion.

Toxicity to Animals Acute oral toxicity (LD50): 1090 mg/kg [Rat]. Lowest Published Lethal Dose: LDL[Woman] - Route:

mg/kgLDL[Human] - Route: Oral; Dose: 143 mg/kg.

Chronic Effects on Humans MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. May cause damage to the following organs: kidneys,

nervous system (CNS).

Other Toxic Effects on Humans Hazardous in case of skin contact (irritant), of eye contact (corrosive), of ingestion, of inhalation. Slightly hazardo

contact (permeator).

Special Remarks on Toxicity to

Animals

Special Remarks on Chronic Effects

on Humans

Not available.

May cause adverse reproductive effects (Male and Female fertility) based on animal data. May affect genetic mate

ased on animal data.

12. Ecological information

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Ecotoxicity Not available

Mobility Completely soluble in water

BOD5 and COD Not available

Products of Biodegradation Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise

Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of

Biodegradation

Not available

13. Disposal considerations

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Disposal considerations

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport information

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- Not classified as hazardous for transport
- DOT Classification: CLASS 5.1: Oxidizing material.
- Identification: : Potassium permanganate UNNA: 1490 PG: II
- Special Provisions for Transport: Not available.

15. Regulatory information

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Federal and State Regulations

Connecticut carcinogen reporting list.: Potassium permanganate Illinois toxic substances disclosure to employer permanganate Illinois chemical safety act: Potassium permanganate New York release reporting list: Potassium per Island RTK hazardous substances: Potassium permanganate Pennsylvania RTK: Potassium permanganate Ma Potassium permanganate Massachusetts spill list: Potassium permanganate New Jersey: Potassium permanganate New Potassium permanganate Louisiana spill reporting: Potassium permanganate California Director's list of Haza Potassium permanganate

Other Regulations

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product i 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- Ver organisms, may cause long-term adverse effects in the aquatic environment. S60- This material and its container mus 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.

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