

**POTASSIUM PERMANGANATE****0672**

May 2003

CAS No: 7722-64-7  
 RTECS No: SD6475000  
 UN No: 1490  
 EC No: 025-002-00-9

Permanganic acid potassium salt  
 $\text{KMnO}_4$   
 Molecular mass: 158

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Not combustible but enhances combustion of other substances. Gives off irritating or toxic fumes (or gases) in a fire.	NO contact with flammable substances.	In case of fire in the surroundings: use appropriate extinguishing media.
<b>EXPLOSION</b>	Risk of fire and explosion on contact with combustible substances and reducing agents.		
<b>EXPOSURE</b>		<b>PREVENT DISPERSION OF DUST! STRICT HYGIENE!</b>	
<b>Inhalation</b>	Burning sensation. Cough. Sore throat. Shortness of breath. Laboured breathing. Symptoms may be delayed (see Notes).	Avoid inhalation of dust. Local exhaust or breathing protection.	Fresh air, rest. Half-upright position. Artificial respiration may be needed. Refer for medical attention.
<b>Skin</b>	Redness. Skin burns. Pain.	Protective gloves. Protective clothing.	First rinse with plenty of water, then remove contaminated clothes and rinse again. Refer for medical attention.
<b>Eyes</b>	Redness. Pain. Severe deep burns.	Face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Burning sensation. Abdominal pain. Diarrhoea. Nausea. Vomiting. Shock or collapse.	Do not eat, drink, or smoke during work.	Rinse mouth. Give plenty of water to drink. Do NOT induce vomiting. Refer for medical attention.

**SPILLAGE DISPOSAL**

Sweep spilled substance into covered containers. Carefully collect remainder, then remove to safe place. Do NOT absorb in saw-dust or other combustible absorbents. Personal protection: chemical protection suit including self-contained breathing apparatus. Do NOT let this chemical enter the environment.

**PACKAGING & LABELLING**

O Symbol  
 Xn Symbol  
 N Symbol  
 R: 8-22-50/53  
 S: (2-)60-61  
 UN Hazard Class: 5.1  
 UN Pack Group: II

**EMERGENCY RESPONSE**

Transport Emergency Card: TEC (R)-51G02-I-II+III

**SAFE STORAGE**

Separated from combustible and reducing substances, powdered metals. Well closed.

**IPCS**

International  
 Programme on  
 Chemical Safety



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 IPCS 2005

SEE IMPORTANT INFORMATION ON THE BACK.

### IMPORTANT DATA

**Physical State; Appearance**

DARK PURPLE CRYSTALS.

**Chemical dangers**

The substance decomposes on heating producing toxic gases and irritating fumes. The substance is a strong oxidant and reacts with combustible and reducing materials, causing fire and explosion hazard. Reacts violently with powdered metals, causing fire hazard.

**Occupational exposure limits**

TLV: (as Mn) 0.2 mg/m<sup>3</sup>, as TWA; (ACGIH 2003).  
MAK: (as Mn) (Inhalable fraction) 0.5 mg/m<sup>3</sup>; Peak limitation category: I(1); Pregnancy risk group: C; (DFG 2003).

**Routes of exposure**

The substance can be absorbed into the body by inhalation of its dust and by ingestion.

**Inhalation risk**

Evaporation at 20/C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.

**Effects of short-term exposure**

The substance is corrosive to the eyes, the skin and the respiratory tract. Corrosive on ingestion. Inhalation of the dust of this substance may cause lung oedema (see Notes). The effects may be delayed. Medical observation is indicated.

**Effects of long-term or repeated exposure**

The substance may have effects on the lungs, resulting in bronchitis and pneumonia.

### PHYSICAL PROPERTIES

Decomposes below melting point at 240/C  
Density: 2.7 g/cm<sup>3</sup>

Solubility in water, g/100 ml at 20/C: 6.4  
Vapour pressure, Pa at 20/C: negligible

### ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms.

### NOTES

Rinse contaminated clothes (fire hazard) with plenty of water.  
The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation is therefore essential.  
Card has been partly updated in October 2005. See section Occupational Exposure Limits.

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

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