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Potassium Permanganate ($KMnO_4$)

Material Safety Data Sheet

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration
Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

Form Approved
OMB No. 44-R1387

Section I

MANUFACTURER'S NAME: HUMCO LABORATORY, INC.

EMERGENCY TELEPHONE NO.: (903) 793-3174

ADDRESS: P.O.BOX 2550
TEXARKANA, TEXAS 75501

CHEMICAL NAME AND SYNONYMS: Potassium Permanganate

CAS Registry No. 7722-64-7

CHEMICAL FAMILY: Oxidizer

TRADE NAME AND SYNONYMS:

FORMULA: $KMnO_4$

Section II Hazardous Ingredients

	%	TLV (Units)
Section II is not applicable since product is a single compound – Potassium Permanganate.	98	by wt

Section III Physical Data

BOILING POINT (°F.): 302°F Decomposes with evolution of O_2

SPECIFIC GRAVITY ($H_2O = 1$): 2.7

SOLUBILITY IN WATER: 6.5 g/100mL water at 20°C (68°F)

Section IV Fire and Explosion Hazard Data

FLASH POINT (Method used): Not Flammable

EXTINGUISHING MEDIA: Water

SPECIAL FIRE FIGHTING PROCEDURES
Use plenty of water. Watch for rapid burning and be prepared to retreat to a safe distance. If yellow-brown fumes are present, wear a positive pressure, self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
May decompose spontaneously if exposed to intense heat, concentrated acids, hydrogen peroxide, reducing agents, or organic substances generally. In confined areas, this decomposition may become explosive.

Section V Health Hazard Data

THRESHOLD LIMIT VALUE
Manganese and its inorganic compounds as Mn C 5 mg/m³ (C = ceiling value).

EFFECTS OF OVEREXPOSURE
Prolonged inhalation of manganese in the form of its inorganic compounds may cause manganism.

EMERGENCY AND FIRST AID PROCEDURES

BODY: Wash contaminated areas with copious amounts of water.

EYES: Flood with water for 15 minutes, holding the eyelids open. Consult physician immediately. Do NOT attempt to neutralize chemically.

INTERNAL: Give lemon or orange juice to drink; in addition, a milk or sugar solution may be given. If none of these are available, give large quantities of water to drink. Consult physician.

Section VI Reactivity Data

STABILITY Stable **CONDITIONS TO AVOID** Exposure to incompatible materials or heat.

INCOMPATIBILITY (Materials to avoid)

Including but not limited to alcohols, arsenites, iodides, acids, charcoal, organic substances generally, ferrous or mercurous salts, hypophosphites, hyposulfites, sulfites, peroxides, oxalates.

HAZARDOUS DECOMPOSITION PRODUCTS

With hydrochloric acid, chlorine is liberated.

HAZARDOUS POLYMERIZATION

Will not occur

Section VII Spill or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Sweep up and remove as much as $KMnO_4$ as possible; do not return contaminated material to original drum; transfer to clean metal drum and dispose in hazardous landfill; flush floor with abundant quantities of water into sewer, if permitted by Federal, State and Local regulations; if not, treat chemically (see below).

WASTE DISPOSAL METHOD

Reduce $KMnO_4$ solution with sodium thiosulfate solution, mix the sludge with soda ash (Na_2CO_3) and deposit in an approved landfill. Where permitted, the sludge can be drained into a sewer with large quantities of water.

Section VIII Special Protection Information

RESPIRATORY PROTECTION (Specify type)

Mechanical (General)

PROTECTIVE GLOVES Rubber or Plastic Gloves

VENTILATION

For dust, use a NIOSH approved dust mask.

EYE PROTECTION Goggles/Face Shield

Section IX Special Precautions

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store in a cool, dry area in closed containers separate from organics, concentrated acids, peroxides, ammonium compounds, metallic powders, elemental sulfur, phosphorous, carbon, metal hydrides, hydrazine, hydroxylamines.

OTHER PRECAUTIONS

DOT class: oxidizer; reportable quantity - 100 lb.

RCRA; Oxidizers such as potassium permanganate meet the criteria of ignitable waste