BLACK SWAN MFG. CO.

GHS SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Manufacturer:
Black Swan Mfg. Co.
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For any Transportation or Medical Chemical Emergencies call:

INFOTRAC

(800) 535-5053 **OR** (352) 323-3500

24 hours per day - 7 days a week

Product Name: Potassium Permanganate

Recommended Use: A very strong oxidizing agent that converts dissolved iron and/or manganese to insoluble oxides which can be removed by filtration.

SECTION 2 – HAZARD(S) IDENTIFICATION

Label

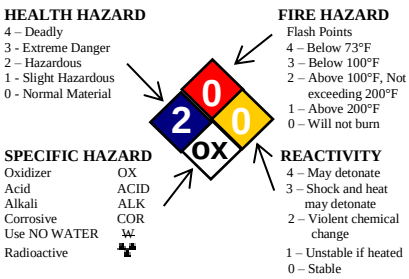
Oxidizing | Health Hazard | Environmental Hazard

Signal Word

Danger

HMIS

NFPA



GHS Classification

Health

Acute Toxicity: Cat. 4
Skin Irritation: Cat. 2
Eye Irritation: Cat. 2
Skin Sensitization: NO

Environmental

Acute Aquatic Toxicity: Cat. 1
Chronic Aquatic Toxicity: Not Established

Physical

Oxidizing Solid: Category 2

Hazardous Statements

H272: May intensify fire; oxidizer
H302: Harmful if swallowed
H410: Very toxic to aquatic life with long lasting effects

Precautionary Statements

P102: Keep out of reach of children
P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking
P220: Keep/store away from clothing/combustible materials
P260: Do not breathe dust
P280: Wear protective gloves/protective clothing/eye protection/face protection

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemicals	CAS#	EINECS#	REACH Pre-registration Number	Approx %
POTASSIUM PERMANGANATE	7722-64-7	231-760-3	01-2119480139-34-0000	97% min, KMnO

*Unlisted ingredients are not classified as hazardous according to OSHA 1910.1200.

SECTION 4 – FIRST-AID MEASURES

Inhalation: Remove person from contaminated area to fresh air. If breathing has stopped, resuscitate and administer oxygen if readily available. Seek medical attention immediately.
Skin: Immediately wash contaminated areas with large amounts of water. Remove contaminated clothing and footwear. Wash contaminated clothing and footwear before reuse. Seek medical attention immediately if irritation is severe or persistent.
Eyes: Immediately flush eyes with large amounts of water for at least 15 minutes, holding lids apart to ensure flushing of the entire surface. Do not attempt to neutralize chemically. Seek medical attention immediately.
Ingestion: Never give anything by mouth to an unconscious or convulsing person. If person is conscious, give large quantities of water. Seek medical attention immediately.

SECTION 5 – FIRE-FIGHTING MEASURES

Fire Hazard: Powerful oxidizing material. May decompose spontaneously if exposed to intense heat (150°C/302°F) with evolution of gaseous oxygen. May undergo rapid exothermic reaction when in contact with certain chemicals (See section 10). May react violently with finely divided and readily oxidizable substances. Increases burning rate of combustible material.
Combustion Products: Oxides of potassium, oxides of manganese. Fire may product irritating, poisonous and/or corrosive fumes.
Extinguishing Media: Large quantities of water. Water will turn pink to purple if in contact with Potassium Permanganate. Dike to contain.
Unsuitable Extinguishing Media: Dry chemical, CO2, Halon or Foams.
Protective Equipment: Wear protective gloves, boots, goggles and respirator. Wear positive pressure breathing apparatus.
Special Fire Fighting Procedures: Approach site of incident with caution. Use Emergency Response Guide NAERG 96 (RSPA P5800.7). Guide No. 140. If material is involved with fire, flood with water. Cool all affected containers with large quantities of water. Apply water from as far a distance as possible. Wear a self-contained breathing apparatus and full protective equipment.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions: Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Remove all ignition sources and incompatible materials before attempting clean-up.
Protective Equipment: Protective clothing suitable for the task.
Emergency Procedures: Remove all sources of ignition and ventilate area. For leaks, stop leak if it can be done safely. Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
Environmental Precautions: Avoid runoff into storm sewers, ditches and waterways.
Methods for Cleaning Up: Clean up spill immediately by sweeping or shoveling up the material. Do not return spilled material to the original container. Transfer to a clean metal drum. EPA banned the land disposal of D001 ignitable waste oxidizers. These wastes must be deactivated by reduction. To clean floors, flush with abundant quantities of water into sewer, if permitted by federal, state and local regulations. If not permitted, collect water and treat chemically according to Section 13 below.

SECTION 7 – HANDLING AND STORAGE

Handling	Storage
Wash hands thoroughly with soap and water after handling. Do not eat, drink or smoke in the work area. Keep products away from heat, sparks, flames and all other sources of ignition. Keep containers closed when not in use. Wear proper protective equipment. Remove contaminated clothing.	Store in accordance with NFPA 430 requirements for Class II oxidizers. Keep container closed when not in use. Protect container from physical damage. Store in a cool, dry area. **Incompatible Materials**: Acids, peroxides, formaldehyde, and all combustible, organic or easily oxidizable materials including antifreeze and hydraulic liquid and metal powders. With hydrochloric acid, toxic chlorine gas is liberated.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

	Exposure Limits		
Hazardous Chemicals	**ACGIH-TLV**	**ACGIH-STEL**	**OSHA-PEL**
POTASSIUM PERMANGANATE	0.2 mg/m^3	N/A	5 mg/m^3

Engineering Controls: A source of running water to flush or wash the eyes and skin in case of contact. Use local exhaust as needed.
Ventilation: Provide sufficient area or local exhaust.
Personal Protective Equipment – Respiratory: In the case where overexposure may exist, the use of an approved NIOSH-MSHA dust respirator or an air supplied respirator is advised. Engineering or administrative controls should be implemented to control dust.
Personal Protective Equipment – Skin: Rubber or plastic gloves and rubber or plastic apron.
Personal Protective Equipment – Eyes: Face shield, goggles or safety glasses.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Dark purple with metallic luster	**Flash Point**:	Not Established	**Vapor Pressure**:	Not Established
Odor:	Odorless	**Specific Gravity**:	2.7 @ 20°C (68°F)	**Flammability**:	Not Established
pH:	Not Established	**Solubility (H2O):**	6%@20°C; 20%@65°C	**Flammability Limits**:	LEL – Not Established
Melting Point:	150°C (302°F	**Evaporation Rate**:	Not Established		UEL – Not Established
Freezing Point:	Not Established	**Vapor Density**:	1.01 g/mL at 25°C		
Boiling Point:	Not Established	**VOC**:	0 g/l		

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable.
Hazardous polymerization: Will not occur.
Conditions to avoid: Contact with incompatible materials or heat above 150°C (302°F).
Incompatible materials: Acids, peroxides, formaldehyde, and all combustible, organic or easily oxidizable materials including antifreeze and hydraulic liquid and metal powders. With hydrochloric acid, toxic chlorine gas is liberated.
Hazardous decomposition products: When involved in a fire, potassium permanganate may form corrosive fumes.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicity

Hazardous Chemicals	LD_{50}	LC_{50}
POTASSIUM PERMANGANATE	Oral: 780 mg/kg Male (14 days) (rat) Oral: 525 mg/kg Female (14 days) (rat)	N/A

The fatal adult human dose is estimated to be 10 grams.

Likely Routes of Exposure: Inhalation, Skin Contact, Eye Contact and Ingestion.
Symptoms and Effect - Inhalation: Airborne concentrations of Potassium Permanganate in the form of dust or mist may cause damage to the respiratory tract. **Skin Contact:** Contact of solutions at room temperature may be irritating to the skin, leaving brown stains. Concentrated solutions at elevated temperature and crystals are damaging to the skin. **Eye Contact:** Potassium Permanganate is damaging to eye tissue on contact. It may cause severe burns that result in damage to the eye. **Ingestion:** Potassium Permanganate, if swallowed, may cause severe burns to mucous membranes of the mouth, throat, esophagus and stomach.
Long-Term Effect: Chronic Overexposure – Prolonged overexposure, usually over many years, to heavy concentrations of manganese oxides in the form of dust and fumes, may lead to chronic manganese poisoning, chiefly involving the central nervous system.
Pre-Existing Conditions: Aggravated by exposure – Potassium Permanganate will cause further irritation of tissue, open wounds, burns or mucous membranes.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: None know.
Aquatic Toxicity: Rainbow trout – 96hrs LC50: 1.80 mg/L. Bluegill sunfish – 96hrs LC50: 2.3 mg/L.
Persistance & Degradability: None known.
Bioaccumulative Potential: In non-reducing and non-acidic environments NnO2 is insoluble and has a very low bio accumulative potential.
Mobility in soil: In normal use, emission of Volatile Organic Compounds (VOC's) to the air takes place, typically at a rate of 0 g/l.

SECTION 13 – DISPOSAL CONSIDERATION

Reduce Potassium Permanganate in aqueous solutions with Sodium Thiosulfate (Hypo), or Sodium Bisulfite or ferrous salt solution. The Thiosulfate or ferrous salt may require some dilute sulfuric acid to promote rapid reduction. If acid was used, neutralize with sodium bicarbonate to neutral pH. Decant or filter, and mix the sludge with sodium carbonate and deposit in an approved landfill. Where permitted, the sludge can be drained into the sewer with large quantities of water. Use caution when reacting chemicals.

SECTION 14 – TRANSPORTATION INFORMATION

Shipping Information

Shipping Name: Potassium Permanganate
Hazardous Class: 5.1
I.D. Number: UN1490
Packing Group: II
Label Required: Oxidizer
Marine Pollutant: No

Exception to the rule: If the package that contains the hazardous material is in a small consumer size (Less than 1L), then the rules that apply to shipping hazardous materials do not apply. This is called an "Exception".
This is classified as Consumer Commodity ORM-D.

SECTION 15 – REGULATORY INFORMATION

Precautionary Label Information: Oxidizing, Health Hazard, Corrosive, Environmental Hazard
Risk Phrases: R22-Harmful if swallowed. **R34**-Causes burns. **R36/37**-Irritant to eyes and respiratory system. **R41**-Risk of serious eye damage. **R51**-Toxic to aquatic organisms.
Safety Phrases: S2-Keep out of reach of children. **S9**-Keep container in a well-ventilated place. **S16**-Keep away from sources of ignition-No smoking. **S25**-Avoid contact with eyes. **S26**-In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

SECTION 16 – OTHER INFORMATION

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. Black Swan Mfg. Co. urges the customers receiving this Material Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents and contractors of the information on the sheets. **DATE: 01/01/2021**