

Safety Data Sheet

Potassium Permanganate Crystals

Section 1 - Chemical Product and Company Identification

SDS Name: Potassium Permanganate Crystals

Catalog Numbers: SO-884

Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H272-Oxidizing solids: 2

H302-Acute toxicity, oral: 4

H314-Skin corrosion/irritation: 1B

H318-Serious eye damage/eye irritation: 1

H335-Specific target organ toxicity, single exposure; Respiratory tract irritation: 3

H361-Reproductive toxicity: 2

H373-Specific target organ toxicity, repeated exposure: 2

H400-Hazardous to the aquatic environment, acute hazard: 1

H410-Hazardous to the aquatic environment, long-term hazard: 1

Consists of unknown acute inhalation toxicity.

Pictograms or Hazard symbols and Hazard statement(s):



Signal Word: Danger

Hazard Statements:

H272-May intensify fire; oxidizer
H302-Harmful if swallowed
H314-Causes severe skin burns and eye damage
H318-Causes serious eye damage
H335-May cause respiratory irritation
H361-Suspected of damaging fertility or the unborn child
H373-May cause damage to organs through prolonged or repeated exposure (target organs: brain, liver)
H400-Very toxic to aquatic life
H410-Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P201-Obtain special instructions before use.
P202-Do not handle until all safety precautions have been read and understood.
P210-Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P220-Keep away from clothing and other combustible materials.
P260-Do not breathe dust/fume/gas/mist/vapours/spray.
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
P264-Wash thoroughly after handling.
P270-Do not eat, drink, or smoke when using this product.
P271-Use only outdoors or in a well-ventilated area.
P273-Avoid release to the environment.
P280-Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312-If swallowed: Call a Poison Center/doctor if you feel unwell.
P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353-If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340-If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313-If exposed or concerned: Get medical advice/attention.
P310-Immediately call a Poison Center/doctor.
P312-Call a Poison Center/doctor if you feel unwell.
P314-Get medical advice/attention if you feel unwell.
P330-Rinse mouth.
P363-Wash contaminated clothing before reuse.
P370+P378-In case of fire: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam to extinguish.
P391-Collect spillage.
P403+P233-Store in a well-ventilated place. Keep container tightly closed.
P405-Store locked up.
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7722-64-7	Potassium Permanganate	≥99

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Get medical attention.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention.

Oral Exposure: If swallowed, get immediate medical advice. Do NOT induce vomiting. Rinse mouth with water and drink small quantities of water (stop if the exposed person feels sick as vomiting may be dangerous).

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

Note: Contact with combustible/organic materials may cause fire. This material has a fire-promoting effect due to the release of oxygen.

Extinguishing Media: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

Hazardous Combustion Products: Potassium oxides, manganese/manganese oxides, irritating and toxic fumes and gases.

Flash Point: Not available

Autoignition Temperature: Not applicable

Explosion Limits, Lower: Not available

Upper: Not available

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 2 OXIDIZING SOLID

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation. Avoid dust formation.

Methods for Cleaning up: Carefully sweep up and containerize for proper disposal. Avoid generating dusty conditions. Provide ventilation. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Ensure adequate ventilation. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Avoid dust formation. Keep in a tightly closed container. Store in a cool, dry, and well-ventilated area. Light sensitive. Keep away from combustible materials. Keep away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Potassium Permanganate CAS#7722-64-7	0.02 mg/m ³ TWA 0.1 mg/m ³ TWA	1 mg/m ³ TWA 3 mg/m ³ STEL 500 mg/m ³ IDLH	5 mg/m ³ Ceiling

OSHA Vacated PELs: Potassium Permanganate: 5 mg/m³ Ceiling

Section 9 - Physical and Chemical Properties

Physical State: Solid
Appearance: Dark purple
Odor: Odorless
Vapor Pressure: Not available
Odor Threshold: Not available
Vapor Density: Not applicable
pH: Approx. 8.0 (16 g/L at 20°C (68°F))
Relative Density: Not available
Melting point/freezing point: 240°C (464°F)
Solubility: Soluble in water
Boiling Point: Not available
Flash Point: Not available
Evaporation Rate: Not applicable
Flammability (solid, gas): Not available
Partition coefficient: n-octanol/water: Not available
Autoignition Temperature: Not applicable
Decomposition Temperature: 240°C (464°F)
Viscosity: Not applicable
Specific Gravity/Density: 2.70 g/cm³ at 20°C (68°F)

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Oxidizer: Contact with combustible/organic material may cause fire.

Conditions to Avoid: Avoid light. Avoid incompatible materials, ignition sources, and excess heat.

Incompatibilities with Other Materials: Strong acids, reducing agents, powdered metals, organic/combustible material, peroxides, alcohols, chemically active metals, glycerin, ethylene glycol.

Hazardous Decomposition Products: Potassium oxides, manganese/manganese oxides, irritating and toxic fumes and gases.

Section 11 - Toxicological Information

CAS#7722-64-7 Potassium Permanganate: RTECS#: SD6475000

LD50 Oral: 750 mg/kg (rat)

LD50 Dermal: >2000 mg/kg (rat)

LC50 Inhalation: Not available

Carcinogenicity: Potassium Permanganate CAS#7722-64-7 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

Information on the likely routes of exposure: Routes of entry anticipated: oral,

dermal, inhalation, and eye.

Epidemiology: Not available.

Teratogenicity: Not available.

Reproductive Effects: Suspected of damaging fertility or the unborn child.

Developmental Effects: Not available.

Neurotoxicity: Not available.

Mutagenicity: Ames test negative (*E. coli*/salmonella typhimurium). In vitro mammalian cell gene mutation negative (mouse lymphoma). In vivo micronucleus negative (rat, bone marrow, oral).

Specific Target Organ Toxicity, Single Exposure: Respiratory system and central nervous system.

Specific Target Organ Toxicity, Repeated Exposure: Brain, liver.

Symptoms associated with exposure: Ingestion may cause swelling, pain, burning, diarrhea, nausea, vomiting, and potential for perforation of stomach/esophagus. Skin contact may cause redness, burns, pain, irritation. Eye contact may cause redness, pain, burns, and damage. Inhalation may cause burning, cough, sore throat, shortness of breath. Symptoms may be delayed.

The toxicological properties of this material have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains. Very toxic to aquatic life with long lasting effects.

CAS#7722-64-7 Potassium Permanganate:

LC50, freshwater fish: 0.47 mg/L 96h semi-static (*poecilia reticulata*)(guppy)

ErC50, freshwater algae: 0.8 mg/L 72h static (*desmodesmus subspicatus*)(green algae)

EC50, water flea: 0.06 mg/L 48h semi-static (*daphnia magna*)

EC50, bacteria: 164 mg/L 180min static (activated sludge)

Persistence and degradability: Not available.

Bio-accumulative potential: Not available.

Mobility: Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT

Proper shipping name: POTASSIUM PERMANGANATE

UN1490

PG II

Hazard class 5.1

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 8-16-18

Revision #1: 5-26-22

Revision #2: 8-28-24

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