

Last revised date: 12/14/2021

Becton, Dickinson and Company BD, Franklin Lakes, NJ 07417 USA www.bd.com

SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
212513	TB Potassium Permanganate	No data available

Recommended restrictions

Recommended use: Laboratory Chemicals

Restrictions on use: None known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: BD, Integrated Diagnostic Solutions

Address: 7 Loveton Circle

Sparks, MD 21152

USA

Telephone: 1 844 823 5433 Fax: not available Contact Person: Tech Services

Emergency telephone number: CHEMTREC 1 800 424 9300

2. Hazard(s) identification

Hazard Classification

Health Hazards

Toxic to reproduction Category 2

Environmental Hazards

Acute hazards to the aquatic Category 2

environment

Chronic hazards to the aquatic Category 3

environment

Label Elements

Hazard Symbol:

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Signal Word: Warning

Hazard Statement: H361: Suspected of damaging fertility or the unborn child.

H401: Toxic to aquatic life.

H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read

and understood.

P280: Wear protective gloves/protective clothing/eye

protection/face protection.

P273: Avoid release to the environment.

Response: P308+P313: IF exposed or concerned: Get medical

advice/attention.

Storage: P405: Store locked up.

P235: Keep cool.

Disposal: P501: Dispose of contents/container to an appropriate treatment

and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification:

None.

3. Composition/information on ingredients

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Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Permanganic acid (HMnO4), potassium salt (1:1)	No data available.	7722-64-7	0.5%

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Description of necessary first-aid measures

General information: Get immediate medical advice/attention. If medical advice is

needed, have product container or label at hand.

Inhalation: Provide fresh air, warmth and rest, preferably in comfortable

upright sitting position.

Skin Contact: Wash off promptly and flush contaminated skin with water.

Promptly remove clothing if soaked through and flush skin with

water. Get medical attention if symptoms occur. Wash

contaminated clothing before reuse.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If

easy to do, remove contact lenses. Get medical attention

promptly if symptoms occur after washing.

Ingestion: If swallowed, rinse mouth with water (only if the person is

conscious). Do NOT induce vomiting. Get medical attention

immediately.

Personal Protection for First-aid

Responders:

No data available.

Most important symptoms and effects, both acute and delayed

Symptoms: Symptoms may be delayed.

Hazards: May damage fertility or the unborn child.

Indication of immediate medical attention and special treatment needed

Treatment: IF exposed or concerned: Get medical advice/attention. Wash off

promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water.

5. Fire-fighting measures

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General Fire Hazards: Extinguish all ignition sources. Avoid sparks, flames, heat

and smoking. Ventilate. Use water to keep fire exposed

containers cool and disperse vapors.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, fog, CO2, dry chemical, or alcohol resistant

foam.

Unsuitable extinguishing media: Avoid water in straight hose stream; will scatter and spread

fire

Special hazards arising from the

substance or mixture:

Fire or excessive heat may produce hazardous

decomposition products.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No unusual fire or explosion hazards noted.

Special protective equipment for

fire-fighters:

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency

procedures:

Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. Contact local authorities in case of spillage to drain/aquatic

environment.

Accidental release measures:

Methods and material for containment and cleaning up:

No data available.

Stop leak if possible without any risk. Prevent runoff from entering drains, sewers, or streams. Absorb spillage with suitable absorbent material. See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see

section 13 of the SDS.

Environmental Precautions: Do not release into the environment. Environmental

manager must be informed of all major spillages.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):

Adequate ventilation should be provided whenever the

material is heated or mists are generated.

Safe handling advice: Do not breathe dust/fume/gas/mist/vapors/spray. Do not get

in eyes and avoid contact with skin and clothing. Wash promptly with soap and water if skin becomes contaminated.

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When using do not eat, drink or smoke. Read and follow manufacturer's recommendations. Use personal protective

equipment as required.

Contact avoidance measures: No data available.

Storage

Safe storage conditions: Store in tightly closed original container in a dry, cool and

well-ventilated place.

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters Occupational Exposure Limits

Chemical Identity	Туре	Exposure Limit Values	Source
Permanganic acid (HMnO4), potassium salt (1:1) - Inhalable fraction as Mn	TWA	0.1 mg/m3	US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values, as amended
Permanganic acid (HMnO4), potassium salt (1:1) - Respirable fraction as Mn	TWA	0.02 mg/m3	US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values, as amended
Permanganic acid (HMnO4), potassium salt (1:1) - as Mn	Ceiling	5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
	Ceiling	5 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A, as amended
Permanganic acid (HMnO4), potassium salt (1:1) - Particulate.	AN ESL	2 μg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
	ST ESL	20 μg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended
Permanganic acid (HMnO4), potassium salt (1:1) - as Mn	TWA PEL	0.2 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants, as amended
Permanganic acid (HMnO4), potassium salt (1:1) - Inhalable fraction as Mn	TWA	0.1 mg/m3	US. ACGIH Threshold Limit Values, as amended
Permanganic acid (HMnO4), potassium salt (1:1) - Respirable fraction as Mn	TWA	0.02 mg/m3	US. ACGIH Threshold Limit Values, as amended
Permanganic acid (HMnO4), potassium salt (1:1) - Fume as Mn	REL	1 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
	STEL	3 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Permanganic acid (HMnO4), potassium salt (1:1)	IDLH	500 mg/m3	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended
Permanganic acid (HMnO4),	Ceiling	5 mg/m3	US. OSHA Table Z-1 Limits for Air

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potassium salt (1:1) - as Mn		Contaminants (29 CFR 1910.1000), as
		amended

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

Appropriate Engineering

Adequate ventilation should be provided whenever the material is heated or

Controls mists are generated.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: Material: Use suitable protective gloves if risk of skin contact.

Skin and Body Protection: Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below

recommended exposure limits (where applicable) or to an acceptable level

(in countries where exposure limits have not been established), an

approved respirator must be worn.

Hygiene measures: Do not eat, drink or smoke when using the product. Wash promptly if skin

becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. Avoid contact with skin. Do not breathe

dust/fume/gas/mist/vapors/spray.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state: liquid Form: Liquid

Color: According to product specification.

Odor: Characteristic
Odor Threshold: No data available.
Freezing point: No data available.
Boiling Point: No data available.
Flammability: No data available.

Upper/lower limit on flammability or explosive limits

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Explosive limit - upper:
Explosive limit - lower:
No data available.
No data available.
Not applicable
No data available.
No data available.
Decomposition Temperature:
No data available.
No data available.
No data available.

Viscosity

Dynamic viscosity: Not determined.

Kinematic viscosity: Not determined.

Flow Time: No data available.

Solubility(ies)

Solubility in Water: Completely Soluble
Solubility (other): No data available.

Partition coefficient (n- No data available.

octanol/water):

Vapor pressure:No data available.Relative density:No data available.Density:No data available.Bulk density:No data available.Relative vapor density:No data available.

Particle characteristics

Particle Size:No data available.Particle Size Distribution:No data available.Specific surface area:No data available.

Surface charge/Zeta potential: No data available.

Shape: No data available.

Crystallinity: No data available.

Surface treatment: No data available.

Other information

Metal Corrosion: Non-corrosive per US Department of Transportation testing

protocol.

10. Stability and reactivity

Reactivity: Material is stable under normal conditions.

Chemical Stability: No data available.

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Possibility of hazardous

Stable; however, may decompose if heated. None under

reactions: normal conditions.

Conditions to avoid: Avoid exposure to high temperatures or direct sunlight.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition

Products:

By heating and fire, harmful vapors/gases may be

formed.

11. Toxicological information

Information on toxicological effects

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Information on likely routes of exposure

Acute toxicity (list all possible routes of exposure)

Oral

Product: Not classified for acute toxicity based on available data.

Components:

Permanganic acid LD 50 (Rat): > 2,000 mg/kg (HMnO4), potassium salt Experimental result, Key study

(1:1)

Dermal

Product: Not classified for acute toxicity based on available data.

Components:

Permanganic acid LD 50 (Rat): > 2,000 mg/kg (HMnO4), potassium salt Experimental result, Key study

(1:1)

Inhalation

Product: Not classified for acute toxicity based on available data.

Components:

Permanganic acid No data available. (HMnO4), potassium salt

(1:1)

Repeated dose toxicity

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Product: No data available.

Components:

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Permanganic acid NOAEL (Rat(Female, Male), Oral, 28 d): 40 mg/kg Experimental result,

(HMnO4), potassium salt Key study Oral

(1:1) NOAEL (Rat(Female, Male), Dermal, 28 d): 150 mg/kg Experimental

result, Key study Dermal

Skin Corrosion/Irritation

Product: No data available.

Components:

Permanganic acid in vivo (Rabbit): Corrosive

(HMnO4), potassium salt

(1:1)

Serious Eye Damage/Eye Irritation

Product: No data available.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt

(1:1)

Respiratory or Skin Sensitization

Product: No data available.

Components:

Permanganic acid Skin sensitization:, in vivo (Guinea pig): Non sensitising

(HMnO4), potassium salt

(1:1)

Carcinogenicity

Product: No data available.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt

(1:1)

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogens present or none present in regulated quantities

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogens present or none present in regulated quantities

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity

In vitro

Product: No data available.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt

(1:1)

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In vivo

Product: No data available.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt

(1:1)

Reproductive toxicity

Product: May damage fertility or the unborn child.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt

(1:1)

Specific Target Organ Toxicity - Single Exposure

Product: Based on available data, the classification criteria are not met.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt

(1:1)

Specific Target Organ Toxicity - Repeated Exposure

Product: Based on available data, the classification criteria are not met.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt

(1:1)

Aspiration Hazard

Product: Based on available data, the classification criteria are not met.

Components:

Permanganic acid No data available. (HMnO4), potassium salt

(1:1)

Information on health hazards

Other hazards

Product: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Components:

Permanganic acid LC 50 (Poecilia reticulata, 48 h): 0.7 mg/l Experimental result, Key study (HMnO4), potassium salt NOAEL (Poecilia reticulata, 72 h): 0.35 mg/l Experimental result, Key

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(1:1)study

LC 100 (Poecilia reticulata, 24 h): > 1.67 mg/l Experimental result, Key

study

LC 100 (Poecilia reticulata, 72 h): 0.69 mg/l Experimental result, Key

NOAEL (Poecilia reticulata, 96 h): 0.35 mg/l Experimental result, Key

study

Aquatic Invertebrates

Product: No data available.

Components:

Permanganic acid (HMnO4), potassium salt

(1:1)

EC 50 (Daphnia magna, 24 h): 0.15 mg/l Experimental result, Key study EC 100 (Daphnia magna, 24 h): 0.64 mg/l Experimental result, Key

study

EC 100 (Daphnia magna, 48 h): 0.32 mg/l Experimental result, Key

EC 50 (Daphnia magna, 48 h): 0.06 mg/l Experimental result, Key study NOAEL (Daphnia magna, 24 h): 0.02 mg/l Experimental result, Key

Toxicity to Aquatic Plants

Product: No data available.

Components:

Permanganic acid (HMnO4), potassium salt

(1:1)

Toxicity to microorganisms

Product: No data available.

Components:

Permanganic acid

(HMnO4), potassium salt

(1:1)

No data available.

No data available.

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Components:

Permanganic acid No data available. (HMnO4), potassium salt

(1:1)

Aquatic Invertebrates

Product: No data available.

Components:

Permanganic acid No data available. (HMnO4), potassium salt

(1:1)

Toxicity to Aquatic Plants

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Product: No data available.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt (1:1)

Toxicity to microorganisms

Product: No data available.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt (1:1)

Persistence and Degradability

Biodegradation

Product: No data available.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt

(1:1)

BOD/COD Ratio

Product: No data available.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt

(1:1)

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt

(1:1)

Partition Coefficient n-octanol / water (log Kow)

Product: Log Kow: No data available.

Components:

Permanganic acid No data available.

(HMnO4), potassium salt

(1:1)

Mobility in soil:

Product No data available.

Components:

Permanganic acid (HMnO4)No data available. potassium salt (1:1)

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Results of PBT and vPvB assessment:

Product No data available.

Components:

Permanganic acid (HMnO4),No data available.

potassium salt (1:1)

Other adverse effects:

Other hazards

Product: No data available.

13. Disposal considerations

General information: Dispose of waste and residues in accordance with local authority

requirements.

Disposal methods: Discharge, treatment, or disposal may be subject to national, state, or

local laws.

Since emptied containers retain product residue, follow label warnings

even after container is emptied.

Contaminated Dispose of contents/container to an appropriate treatment and disposal

facility in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

14. Transport information

Packaging:

DOTUN number or ID number: Not regulated. UN Proper Shipping Name: Not regulated.

Transport Hazard Class(es)

Class:
Label(s):
Not regulated.
Packing Group:
Not regulated.
Marine Pollutant:
Not regulated.
Limited quantity
Not regulated.
Excepted quantity
Not regulated.

Special precautions for user: Not regulated.

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IMDG

UN number or ID number: Not regulated. UN Proper Shipping Name: Not regulated.

Transport Hazard Class(es)

Class: Not regulated.
Subsidiary risk: Not regulated.
EmS No.: Not regulated.
Packing Group: Not regulated.

Environmental Hazards

Marine Pollutant: Not regulated.

Special precautions for user: Not regulated.

IATA

UN number or ID number: Not regulated. Proper Shipping Name: Not regulated.

Transport Hazard Class(es):

Class: Not regulated. Subsidiary risk: Not regulated. Packing Group: Not regulated.

Environmental Hazards

Marine pollutant: Not regulated.

Special precautions for user: Not regulated.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity

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Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Reproductive toxicity

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

None present or none present in regulated quantities.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

Chemical Identity

Permanganic acid (HMnO4), potassium salt (1:1)

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

US. New Jersey Worker and Community Right-to-Know Act

No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

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Kyoto protocol

Not applicable

16.Other information, including date of preparation or last revision

Issue Date: 12/14/2021

Version #: 1.2

Further Information: No data available.

Disclaimer: Disclaimer:

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