

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
Revision date 14-Feb-2023  
Revision Number 6.02

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	0.002 mol/l Potassium Permanganate Solution
Product Code	164-14185

**Manufacturer** FUJIFILM Wako Pure Chemical Corporation  
1-2 Doshomachi 3-Chome  
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**Emergency telephone number** +81-6-6203-3741 / +81-3-3270-8571

**Recommended uses and restrictions on use** For research use only

## Section 2: HAZARDS IDENTIFICATION

## GHS classification

Classification of the substance or mixture

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

## Pictograms

**Signal word** None

## Hazard statements

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

## Precautionary statements-(Prevention)

- Not applicable

## Precautionary statements-(Response)

- Not applicable

## Precautionary statements-(Storage)

- Not applicable

## Precautionary statements-(Disposal)

- Not applicable

## Others

**Other hazards** Not available

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Single Substance or Mixture** Mixture

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
water	=<100	18.01	-	N/A	7732-18-5
Potassium permanganate	0.03	158.03	(1)-446	*	7722-64-7

**Note on ISHL No.:** \* in the table means announced chemical substances.

**Impurities and/or Additives:** Not applicable

## Section 4: FIRST AID MEASURES

### Inhalation

Remove to fresh air. If symptoms persist, call a physician.

### Skin contact

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

### Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

### Ingestion

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

### Protection of first-aiders

Use personal protective equipment as required.

## Section 5: FIRE FIGHTING MEASURES

### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

### Unsuitable extinguishing media

No information available

### Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

### Special extinguishing method

No information available

### Special protective actions for

#### fire-fighters

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

## Section 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

### Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

### Methods and materials for contaminant and methods and materials for cleaning up

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

### Recovery, neutralization

No information available

### Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

## Section 7: HANDLING AND STORAGE

### Handling

#### Technical measures

Use with local exhaust ventilation.

#### Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought

contaminated protective equipment and gloves to rest stops Deny unnecessary entry of non-emergency personnel to the handling area

#### Safety handling precautions

Use personal protective equipment as required.

#### Storage

##### Safe storage conditions

##### Storage conditions

Keep container protect from light, store in well-ventilated place at room temperature (preferably cool). Keep container tightly closed.

##### Safe packaging material

Glass

##### Incompatible substances

Strong reducing agents

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

#### Exposure limits

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Potassium permanganate 7722-64-7	0.2mg/m <sup>3</sup> Mn	ISHL/ACL: 0.2 mg/m <sup>3</sup>	TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable particulate matter

#### Personal protective equipment

##### Respiratory protection

Protective mask

##### Hand protection

Protection gloves

##### Eye protection

protective eyeglasses or chemical safety goggles

##### Skin and body protection

Long-sleeved work clothes, protective boots

#### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

#### Form

##### Color

dark reddish purple

##### Turbidity

clear

##### Appearance

liquid

#### Odor

Odorless

#### Melting point/freezing point

no data available

#### Boiling point, initial boiling point and boiling range

no data available

#### Flammability

no data available

#### Evaporation rate:

no data available

#### Flammability (solid, gas):

no data available

#### Upper/lower flammability or explosive limits

##### Upper:

no data available

##### Lower:

no data available

#### Flash point

no data available

#### Auto-ignition temperature:

no data available

#### Decomposition temperature:

no data available

#### pH

no data available

#### Viscosity (coefficient of viscosity)

no data available

#### Dynamic viscosity

no data available

#### Solubilities

water miscible with . acetone , methanol : soluble .

#### n-Octanol/water partition coefficient:(log Pow)

no data available

#### Vapour pressure

no data available

#### Specific Gravity / Relative density

no data available

#### Vapour density

no data available

#### Particle characteristics

no data available

## Section 10: STABILITY AND REACTIVITY

### Stability

**Reactivity** no data available  
**Chemical stability** May be altered by light.

### Hazardous reactions

None under normal processing

### Conditions to avoid

Extremes of temperature and direct sunlight

### Incompatible materials

Strong reducing agents

### Hazardous decomposition products

Metal oxides

## Section 11: TOXICOLOGICAL INFORMATION

Since data of the mixture data is not available. Data of the pure substance is described.

### Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium permanganate	379 mg/kg ( Rat )	N/A	N/A

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
Potassium permanganate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust- source information	Acute toxicity -inhalation mist- source information
Potassium permanganate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

### Skin irritation/corrosion

Chemical Name	Skin corrosion/irritation source information
Potassium permanganate	Based on the NITE GHS classification results.

### Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
Potassium permanganate	Based on the NITE GHS classification results.

### Respiratory or skin sensitization

Chemical Name	Respiratory or Skin sensitization source information
Potassium permanganate	Based on the NITE GHS classification results.

### Reproductive cell mutagenicity

Chemical Name	germ cell mutagenicity source information
Potassium permanganate	Based on the NITE GHS classification results.

### Carcinogenicity

Chemical Name	Carcinogenicity source information
Potassium permanganate	Based on the NITE GHS classification results.

### Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Potassium permanganate	Based on the NITE GHS classification results.

### STOT-single exposure

Chemical Name	STOT -single exposure- source information
Potassium permanganate	Based on the NITE GHS classification results.

### STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
Potassium permanganate	Based on the NITE GHS classification results.

### Aspiration hazard

Chemical Name	Aspiration Hazard source information
Potassium permanganate	Based on the NITE GHS classification results.

## Section 12: ECOLOGICAL INFORMATION

Since data of the mixture data is not available. Data of the pure substance is described.

### Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Potassium permanganate	N/A	LC50: <i>Oncorhynchus mykiss</i> 1.08 - 1.38 mg/L 96 h	EC50 : <i>Eudiaptomus padanus</i> 0.185 mg/L (0.0765 mg Mn/L)

### Other data

Chemical Name	Short-term (acute) hazardous to the aquatic environment source information	Long-term (chronic) hazardous to the aquatic environment source information
Potassium permanganate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Persistence and degradability	No information available
Bioaccumulative potential	No information available
Mobility in soil	No information available
Hazard to the ozone layer	No information available

## Section 13: DISPOSAL CONSIDERATIONS

### Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### Contaminated container and contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14: TRANSPORT INFORMATION

### ADR/RID

UN number	-
Proper shipping name:	
UN classification	
Subsidiary hazard class	
Packing group	
Marine pollutant	Not applicable

### IMDG

UN number	-
Proper shipping name:	
UN classification	
Subsidiary hazard class	
Packing group	
Marine pollutant (Sea)	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

### IATA

UN number	-
Proper shipping name:	
UN classification	
Subsidiary hazard class	
Packing group	
Environmentally Hazardous	Not applicable

## Substance

## Section 15: REGULATORY INFORMATION

International Inventories

EINECS/ELINCS	-
TSCA	-

Japanese regulations

Fire Service Act	Not applicable
Poisonous and Deleterious Substances Control Law	Not applicable
Industrial Safety and Health Act	Not applicable
Regulations for the carriage and storage of dangerous goods in ship	Not applicable
Civil Aeronautics Law	Not applicable
Pollutant Release and Transfer Register Law	Not applicable
(~2023.3.31)	
<u>Pollutant Release and Transfer Register Law</u>	<u>Not applicable</u>
<u>(2023/4/1~)</u>	
Water Pollution Control Act	Specified substances(Law Art.2 Para.4, Enforcement Order Art.3-3)
Export Trade Control Order	Not applicable

## Section 16: OTHER INFORMATION

**Key literature references and sources for data etc.**

NITE: National Institute of Technology and Evaluation (JAPAN)  
<http://www.safe.nite.go.jp/japan/db.html>  
 IATA dangerous Goods Regulations  
 RTECS:Registry of Toxic Effects of Chemical Substances  
 Japan Industrial Safety and Health Association GHS Model SDS  
 Dictionary of Synthetic Organic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.  
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
 etc

**Disclaimer**

This SDS is according to JIS Z 7253: 2019. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GHS Classification is according to JIS Z7252(2019). \*JIS: Japanese Industrial Standards

End of Safety Data Sheet