

0.005mol/L Potassium permanganate solution,
JUNSEI CHEMICAL CO., LTD.,95278jis_J_E2-1,08/11/2018

Date of issue for the 1st edition: 08/11/2018

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Product name: 0.005mol/L Potassium permanganate solution

Product code(SDS NO): 95278jis_J_E2-1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

Address: 1-6, Ohmano-Cho, Koshigaya, Saitama 343-0844, Japan

Division: Quality Assurance Department

Telephone number: +81-48-986-6161

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2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

(Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Ingredient name:Potassium permanganate

Content(%):ca. 0.08

Chemical formula:KMnO4

Chemicals No, Japan:1-446

CAS No.:7722-64-7

MW:158.03

ECNO:231-760-3

Ingredient name:Water

Content(%):Residual quantity of the ingredient mentioned above.

Chemical formula:H2O

CAS No.:7732-18-5

MW:18.02

ECNO:231-791-2

4. First-aid measures

Descriptions of first-aid measures

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water/shower.

If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

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to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth.

Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

The product is non-flammable.

Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters

Wear fire/flame resistant/retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Ventilate area after material pick up is complete.

Wear proper protective equipment.

Environmental precautions

Avoid release to the rivers, lakes, ocean and groundwater.

Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

Preventive measures for secondary accident

Collect spillage.

7. Handling and storage

Precautions for safe handling

Preventive measures

(Protective measures against fire and explosion)

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Exhaust/ventilator

Exhaust/ventilator should be available.

Safety treatments

Avoid contact with skin.

Avoid contact with eyes.

Avoid breathing dust, fume, gas, mist or vapor.

Safety Measures/Incompatibility

Wear protective gloves, protective clothing or face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

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Conditions for safe storage, including any incompatibilities

Recommendation for storage

Store in a well-ventilated place. Keep container tightly closed.
Keep cool. Protect from sunlight.

8. Exposure controls/personal protection

Control parameters

Control value

(Potassium permanganate)
Japan control value (2004) $\leq 0.2\text{mg-Mn}/\text{m}^3$

Adopted value

No Adopted value data available in JSOH
(Potassium permanganate)
ACGIH(2012) TWA: $0.02\text{mg-Mn}/\text{m}^3(\text{R})$;
TWA: $0.1\text{mg-Mn}/\text{m}^3(\text{I})$ (CNS impair)

OSHA-PEL

(Potassium permanganate)
STEL: C $5\text{mg-Mn}/\text{m}^3$

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.
Eye wash station should be available.
Washing facilities should be available.

Individual protection measures

Respiratory protection

Wear respiratory protection.

Hand protection

Wear protective gloves. Recommended material(s): neoprene, nitrile, butyl rubber, viton, PVC, impermeable or chemical resistant rubber
Consult with your glove and/or personnel equipment manufacturer for selection of appropriate compatible materials.

Eye protection

Wear safety glasses with side-shields or chemical safety goggle.
Wear eye/face protection.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties

Appearance: Liquid
Color: Dark purple
Odor data N.A.
pH data N.A.

Phase change temperature

Initial Boiling Point/Boiling point data N.A.
Melting point/Freezing point data N.A.
Decomposition temperature data N.A.
Flash point data N.A.
Auto-ignition temperature data N.A.
Explosive properties data N.A.
Vapor pressure data N.A.
Vapor density data N.A.
Specific gravity/Density data N.A.

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Solubility

Solubility in water: Miscible

n-Octanol /water partition coefficient data N.A.

10. Stability and Reactivity

Chemical stability

Stable under normal storage/handling conditions.

Conditions to avoid

Heat.

Hazardous decomposition products

Metal oxides.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Potassium permanganate) rat LD50=379mg/kg (NITE primary risk assessment, 2008)

Labor standard law, Japan; Toxic

Potassium permanganate

Irritant properties

Skin corrosion/irritation

[GHS Cat. Japan, base data]

(Potassium permanganate) highly corrosive (HSDB, Access on December 2014)

Serious eye damage /irritation

[GHS Cat. Japan, base data]

(Potassium permanganate) highly corrosive (HSDB, Access on December 2014)

No Allergenic and sensitizing effects data available

No Mutagenic effects data available

Carcinogenicity

(Potassium permanganate)

ACGIH-A4(2012) : Not Classifiable as a Human Carcinogen (Inorganic Mn)

No reproductive toxicity data available

Delayed and immediate effects and also chronic effects from short- and long-term exposure

STOT

STOT-single exposure

[cat.3(resp. irrit.)]

[Japan published data]

(Potassium permanganate) Respiratory tract irritation (PATTY 6th, 2012)

No Aspiration hazard data available

Additional data

There are no data available on the preparation itself.

12. Ecological Information

Ecotoxicity

Aquatic toxicity

Aquatic acute toxicity component(s) data

[GHS Cat. Japan, base data]

(Potassium permanganate)

Crustacea (Calanoida) LC50=0.185mg/L/96hr (0.0765mg-Mn/L) (Preliminary Assessment of Environmental Risks of Chemical Substances(MOE) vol.6, 2008)

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Water solubility

(Potassium permanganate) 6.4 g/100 ml (20°C) (ICSC, 2003)

No Persistence and degradability data available

Bioaccumulative potential

(Potassium permanganate) BCF < 81 (Existing Chemical Safety Inspections Data)

Additional information

There are no data available on the preparation itself.

13. Disposal considerations

Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.

14. Transport Information

UN No, UN CLASS

Not applicable to UN NO.

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

US major regulations

TSCA

Potassium permanganate; Water

Other regulatory information

We are not able to check up the regulatory information in regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012) 2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2018 TLVs and BEIs. (ACGIH)

<http://monographs.iarc.fr/ENG/Classification/index.php>

Supplier's data/information

NITE Chemical Risk Information Platform (NITE-CHRIP) <http://www.safe.nite.go.jp/japan/db.html>

GHS Classification Guidance for Enterprises 2013 Revised Edition (Aug. 2013, METI)

General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It are advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.



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The GHS classification data given here is based on current Japan official data (NITE published in 2017).