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Name of section : Reagent division
Catalog and products information section
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MSDS No.49200-70

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Product name : C O D m e t e r A s o l u t i o n

Composition/Information on ingredients

Substance/Mixture: Substance
Chemical name : Potassium permanganate
Ingredients and composition : Potassium permanganate
about 0.08% water solution
Chemical formula : KMnO_4
CAS registry number : 7722-64-7
UN class : Not applicable

Hazards Identification

Class name of hazardous chemicals for SDS in Japan : Not applicable
Physical and Chemical hazards:
This solution is noncombustible, and does not have
particular physical and chemical hazards.
Adverse human health hazards:
A large dose of swallow irritates to throat and stomach,
and causes nausea and vomiting.
Environmental effects : This substance may affect aquatic organisms.

First-aid measures

Eye contact : Gently rinse the affected eyes with clean water for
at least 15 minutes.
If necessary, get medical treatment.
Skin contact : Wash the affected areas under tepid running water.
Inhalation : Remove the victim from the contamination immediately to
fresh air. Keep them warm and quiet, and make them blow
their nose and gargle.
Ingestion : Rinse mouth with water. Give the victim one or two
glasses of water to dilute the chemical.
If necessary, get medical treatment.

Fire-fighting measures

The way fire-fighting:
This solution is noncombustible.
In case of fire, move container from fire areas if it
can be done without risk. If it cannot be, apply water
from a safe distance to cool and protect surrounding
area.
Firefighters should wear proper protective equipment.

Accidental release measures

Absorb spill with paper or cloths, then place in a
chemical waste container.
Flush residual spill (area) with copious amounts of
water.

Handling and storage

- Handling : Avoid contact with skin or eyes.
If necessary, wear appropriate protective equipment.
- Storage : Keep containers tightly closed, and store at a cool place.
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Exposure control/Personal protection

- Control parameters ACGIH (1996): 5mg/m³(as Manganese compounds)
Engineering measures : Use with local exhaust ventilation in vapor atmospheres.
- Personal protective equipment : If necessary, wear gloves and goggles.
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Physical and chemical properties

- Appearance : Purplish pink liquid, odorless
Boiling point : About 100
Melting point : About 0
Density : About 1
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Solubility in water: Miscible in all proportion

Physical hazard

- This solution is noncombustible.
- Oxidizibility : Potassium permanganate itself has oxidizibility, however, 0.08% water solution dose not have dangerous oxidizibility.
- Stability and reactivity : Stable under normal usage.
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Toxicological information

- Corrosive property: If contact with skin, may cause irritation.
- Acute toxicity : A large dose swallow irritates to throat and stomach, and causes nausea and vomiting.
(as potassium permanganate)
rat oral LD₅₀=1,090mg/kg
rabbit oral LD₀=70mg/kg
- Sub-chronic toxicity : Not available
Chronic toxicity : Not available
Carcinogenic effects : Not listed on IARC or NTP.
Mutagenic effects : Not available
Effects on the reproductive system : Not available
Teratogenic effects : Not available
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Ecological information

- Biodegradability : Not available
Bio-accumulation : Not available
Fish toxicity : LD₅₀/96H=100-1mg/l(as Potassium permanganate)
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Disposal consideration

Add reducing agent such as sodium sulfite solution in this product to reduce.
After that, manganese oxide is precipitated.
Filter the precipitation and bury in the landfill site approved for chemical and hazardous wastes.

Transport information

Follow all regulations in your country.

Regulatory information

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

References

- Handbook of dangerous materials,
Guter Hommel, Springer-Verlag Tokyo (1991)
Chemical products of 13398, The Chemical Daily Co.,Ltd (1998)
Chemical dictionary, Kyoritu publishing Co.,Ltd (1963)
- * The information herein is given in good faith, but no warranty, express or implied, is made.