

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Permanganate Time Test Liquid

Revision date 01-03-2025

Revision Number 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Code(s) PL10PTT

Product Name Permanganate Time Test Liquid

Unique Formula Identifier (UFI) WFFR-PACD-HN13-QWTS

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Reagent for water analysis

Uses advised against Others

1.3. Details of the supplier of the safety data sheet

Manufacturer

Water-i.d. GmbH
Daimlerstr. 20
76344 Eggenstein, Germany
Tel.: +49 (0) 721 78 20 29 0, Fax: +49 (0) 721 78 20 29 11
Website: www.water-id.com
EHS / Compliance: lab@water-id.com

1.4. Emergency telephone number

Emergency Telephone +44 1235 239670
English, Albanian, Bosnian, Bulgarian, Croatian, Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Romanian, Russian, Serbian, Slovak, Spanish, Swedish, Turkish and Ukrainian.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Hazardous to the aquatic environment - chronic

Category 3 - (H412)

2.2. Label elements

Hazard statements

H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P273 - Avoid release to the environment

P501 - Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable

2.3. Other hazards

Harmful to aquatic life.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable

3.2 Mixtures

| Chemical name | Weight-% | REACH registration number | EC No (EU Index No) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) |
|-------------------------------------|----------|---------------------------|---------------------|---|------------------------------------|----------|----------------------|
| Potassium permanganate 7722-64-7 | <0.5 | No data available | 231-760-3 | Acute Tox. 4 (H302) Repr. 2 (H361d) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Ox. Sol. 2 (H272) | | | |

Full text of H- and EUH-phrases: see section 16**Acute Toxicity Estimate**

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

| Chemical name | Oral LD50 mg/kg | Dermal LD50 mg/kg | Inhalation LC50 - 4 hour - dust/mist - mg/L | Inhalation LC50 - 4 hour - vapour - mg/L | Inhalation LC50 - 4 hour - gas - ppm |
|-------------------------------------|-----------------|-------------------|---|--|--------------------------------------|
| Potassium permanganate 7722-64-7 | 750 | 2000 | | | |

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures**

| | |
|---------------------|---|
| Inhalation | Remove to fresh air. |
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor. |
| Skin contact | Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor. |
| Ingestion | Rinse mouth. |

4.2. Most important symptoms and effects, both acute and delayed

| | |
|-----------------|---------------------------|
| Symptoms | No information available. |
|-----------------|---------------------------|

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure Limits**

| Chemical name | European Union | Austria | Belgium | Bulgaria | Croatia |
|-------------------------------------|--|---|--|---|---|
| Potassium permanganate 7722-64-7 | - | TWA: 0.2 mg/m ³ STEL 1.6 mg/m ³ | TWA: 0.2 mg/m ³ | TWA: 0.05 mg/m ³ | TWA: 5 mg/m ³ |
| Chemical name | Cyprus | Czech Republic | Denmark | Estonia | Finland |
| Potassium permanganate 7722-64-7 | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ | TWA: 1 mg/m ³ Ceiling: 2 mg/m ³ | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ | TWA: 0.2 mg/m ³ TWA: 0.02 mg/m ³ |
| Chemical name | France | Germany TRGS | Germany DFG | Greece | Hungary |
| Potassium permanganate 7722-64-7 | - | TWA: 0.2 mg/m ³ TWA: 0.02 mg/m ³ | TWA: 0.2 mg/m ³ TWA: 0.02 mg/m ³ Peak: 1.6 mg/m ³ Peak: 0.16 mg/m ³ | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ | - |
| Chemical name | Ireland | Italy MDLPS | Italy AIDII | Latvia | Lithuania |
| Potassium permanganate 7722-64-7 | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ STEL: 0.6 mg/m ³ STEL: 0.15 mg/m ³ | TWA: 0.05 mg/m ³ | TWA: 0.1 mg/m ³ | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ |
| Chemical name | Luxembourg | Malta | Netherlands | Norway | Poland |
| Potassium permanganate 7722-64-7 | - | - | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ | STEL: 0.6 ppm STEL: 0.15 mg/m ³ | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ |
| Chemical name | Portugal | Romania | Slovakia | Slovenia | Spain |
| Potassium permanganate 7722-64-7 | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ | TWA: 0.2 mg/m ³ | TWA: 0.05 mg/m ³ STEL: STEL mg/m ³ | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ |
| Chemical name | Sweden | | Switzerland | | United Kingdom |
| Potassium permanganate 7722-64-7 | NGV: 0.2 mg/m ³ NGV: 0.05 mg/m ³ | | TWA: 0.2 mg/m ³ TWA: 0.1 mg/m ³ | | TWA: 0.2 mg/m ³ TWA: 0.05 mg/m ³ |

Biological occupational exposure limits

| Chemical name | European Union | Austria | Bulgaria | Croatia | Czech Republic |
|-------------------------------------|----------------|---|----------|--|----------------|
| Potassium permanganate 7722-64-7 | - | 20 µg/L (blood - whole blood not provided) (-) | - | - | - |
| Chemical name | Denmark | Finland | France | Germany DFG | Germany TRGS |
| Potassium permanganate 7722-64-7 | - | - | - | 15 µg/L - BAR (end of exposure or end of shift) blood 15 µg/L - BAR (for long-term exposures: at the end of the shift after several shifts) blood | - |

Derived No Effect Level (DNEL) No information available.
Predicted No Effect Concentration (PNEC)

8.2. Exposure controls**Personal protective equipment**

| | |
|--|--|
| Eye/face protection | No special protective equipment required. |
| Skin and body protection | No special protective equipment required. |
| Respiratory protection | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice. |
| Environmental exposure controls | No information available. |

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | |
|------------------------|------------|
| Physical state | Liquid |
| Appearance | Liquid |
| Colour | purple |
| Odour | Odourless. |
| Odour threshold | |

| Property | Values | Remarks • Method |
|---|-------------------|--------------------------|
| Melting point / freezing point | No data available | None known |
| Boiling point / boiling range | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Flash point | No data available | None known |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | | None known |
| pH | 8.0 | None known |
| pH (as aqueous solution) | No data available | No information available |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |
| Water solubility | No data available | None known |
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| Vapour pressure | No data available | None known |
| Relative density | No data available | None known |
| Bulk density | No data available | |
| Liquid Density | No data available | |
| Relative vapour density | No data available | None known |
| Particle characteristics | | |
| Particle Size | | |
| Particle Size Distribution | | |

9.2. Other information

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics

SECTION 10: Stability and reactivity**10.1. Reactivity**

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Information on likely routes of exposure****Product Information**

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity**Acute toxicity****Component Information**

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|------------------------|---------------------|----------------------|-----------------|
| Potassium permanganate | = 750 mg/kg (Rat) | > 2000 mg/kg (Rat) | |

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitisation No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

| Chemical name | European Union |
|------------------------|----------------|
| Potassium permanganate | Repr. 2 |

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards**11.2.1. Endocrine disrupting properties**

Endocrine disrupting properties

11.2.2. Other information

Other adverse effects

SECTION 12: Ecological information**12.1. Toxicity**

Ecotoxicity Harmful to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|------------------------|----------------------|---|----------------------------|-----------|
| Potassium permanganate | - | LC50: 0.769 - 1.27mg/L (96h, Oncorhynchus mykiss) LC50: 1.08 - 1.38mg/L (96h, Oncorhynchus mykiss) LC50: 1.8 - 5.6mg/L (96h, Lepomis macrochirus) | - | - |

| | | | | |
|--|--|--|--|--|
| | | LC50: 2.97 - 3.11mg/L (96h, Cyprinus carpio) LC50: 3.16 - 3.77mg/L (96h, Cyprinus carpio) LC50: =2.3mg/L (96h, Lepomis macrochirus) LC50: =2.7mg/L (96h, Lepomis macrochirus) | | |
|--|--|--|--|--|

12.2. Persistence and degradability

Persistence and degradability

12.3. Bioaccumulative potential

Bioaccumulation No information available.

12.4. Mobility in soil

Mobility in soil

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

| Chemical name | PBT and vPvB assessment |
|------------------------|---|
| Potassium permanganate | The substance is not PBT / vPvB PBT assessment does not apply |

12.6. Endocrine disrupting properties

Endocrine disrupting properties

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information**IATA****Notes**

14.1 UN number or ID number

No components found suitable for Technical Name.

UN3082

14.2 UN proper shipping name

Environmentally hazardous substance, liquid, n.o.s.

14.3 Transport hazard class(es)

9

14.4 Packing group

III

Description

UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III

14.5 Environmental hazards

Yes

14.6 Special precautions for user

Special Provisions

A97, A158, A197

ERG Code

9L

IMDG**Notes****No components found suitable for Technical Name.**

| | |
|--|---|
| 14.1 UN number or ID number | UN3082 |
| 14.2 UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s. |
| 14.3 Transport hazard class(es) | 9 |
| 14.4 Packing group | III |
| Description | UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III, Marine pollutant |
| 14.5 Marine pollutant | P |
| Environmental hazards | Yes |
| 14.6 Special precautions for user | |
| Special Provisions | 274, 335, 969 |
| EmS-No | F-A, S-F |
| 14.7 Maritime transport in bulk according to IMO instruments | |

RID**Notes****No components found suitable for Technical Name.**

| | |
|-----------------------------------|---|
| 14.1 UN number or ID number | UN3082 |
| 14.2 UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s. |
| 14.3 Transport hazard class(es) | 9 |
| 14.4 Packing group | III |
| Description | UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III |
| 14.5 Environmental hazards | Yes |
| 14.6 Special precautions for user | |
| Special Provisions | 274, 335, 375, 601 |
| Classification code | M6 |

ADR**Notes****No components found suitable for Technical Name.**

| | |
|-----------------------------------|--|
| 14.1 UN number or ID number | UN3082 |
| 14.2 UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s. |
| 14.3 Transport hazard class(es) | 9 |
| 14.4 Packing group | III |
| Description | UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III, (-) |
| 14.5 Environmental hazards | Yes |
| 14.6 Special precautions for user | |
| Special Provisions | 274, 335, 601, 375 |
| Classification code | M6 |
| Tunnel restriction code | (-) |

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Water hazard class (WGK) obviously hazardous to water (WGK 2)

Netherlands

| Chemical name | Netherlands - List of Carcinogens | Netherlands - List of Carcinogens | Netherlands - List of Reproductive Toxins |
|------------------------|-----------------------------------|-----------------------------------|---|
| Potassium permanganate | - | - | Development Category 2 |

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This

product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) Regulation (EU) 2024/590

Not applicable

International Inventories

| | |
|----------------------|----------|
| TSCA | Complies |
| DSL/NDSL | Complies |
| EINECS/ELINCS | Complies |
| ENCS | Complies |
| IECSC | Complies |
| KECL | Complies |
| PICCS | Complies |
| AICS | Complies |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment**Chemical Safety Report****SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of any hazard and/or precautionary statements referred to under Sections 2-15**

H272 - May intensify fire; oxidiser
H302 - Harmful if swallowed
H361d - Suspected of damaging the unborn child
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

| | | | |
|---------|-----------------------------|------|----------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | * | Skin designation |

| Classification procedure | |
|---|--------------------|
| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used |
| Acute oral toxicity | Calculation method |
| Acute dermal toxicity | Calculation method |
| Acute inhalation toxicity - gas | Calculation method |
| Acute inhalation toxicity - Vapour | Calculation method |

| | |
|---------------------------------------|--------------------|
| Acute inhalation toxicity - dust/mist | Calculation method |
| Skin corrosion/irritation | Calculation method |
| Serious eye damage/eye irritation | Calculation method |
| Respiratory sensitisation | Calculation method |
| Skin sensitisation | Calculation method |
| Mutagenicity | Calculation method |
| Carcinogenicity | Calculation method |
| Reproductive toxicity | Calculation method |
| STOT - single exposure | Calculation method |
| STOT - repeated exposure | Calculation method |
| Acute aquatic toxicity | Calculation method |
| Chronic aquatic toxicity | Calculation method |
| Aspiration hazard | Calculation method |
| Ozone | Calculation method |

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
 Organisation for Economic Co-operation and Development Screening Information Data Set
 World Health Organization

Revision date 01-03-2025

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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, use, processing, storage, transportation, disposal and release 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.

End of Safety Data Sheet