

Safety data sheet according to UK REACH

Printing date 13.05.2025

Version number 3

Revision: 10.05.2025

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

- **1.1 Product identifier**
- **Trade name:** Potassium Permanganate 1N; 3-<4%
- **SDS number:** CH5352
- **Application of the substance / the mixture** Chemicals products for laboratory

- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 CARLO ERBA REAGENTS
 Chaussée du Vexin
 Parc d'Affaires des Portes - BP616
 27106 VAL DE REUIL Cedex
 Téléphone: +33 (0)2 32 09 20 00
 Télécopie: +33 (0)2 32 09 20 20
- **Further information obtainable from:**
 Q.A / Normative
 email: MSDS_CER-SDS@cer.dgroup.it
- **1.4 Emergency telephone number:**
 Ireland - Tel : 00 353 1 8092568 - 00 353 1 8379964 (24h/24)
 EU Tel : 112
 National Poisons Information Centre: +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)
 Healthcare Professionals: +353 (1) 809 2566 (24 hour service)
 Members of the public seeking specific information on poisons should contact:
 In England and Wales: NHS 111 - dial 111
 In Scotland: NHS 24 - dial 111

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Repr. 2 H361d Suspected of damaging the unborn child. Route of exposure: Oral.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
 The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**



GHS08 GHS09

- **Signal word** Warning
- **Hazard-determining components of labelling:**
 Potassium permanganate
- **Hazard statements**
 H361d Suspected of damaging the unborn child. Route of exposure: Oral.

(Contd. on page 2)

Safety data sheet according to UK REACH

Printing date 13.05.2025

Version number 3

Revision: 10.05.2025

Trade name: Potassium Permanganate 1N; 3-<4%

(Contd. of page 1)

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves / eye protection / face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards
Results of PBT and vPvB assessment

 · **PBT:** Not applicable.

 · **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
Description:

Mixture made by the following substances:

CAS: 7732-18-5 EINECS: 231-791-2 RTECS: ZC 0110000	water, distilled, conductivity or of similar purity	≤100%
--	---	-------

Dangerous components:

CAS: 7722-64-7 EINECS: 231-760-3 Index number: 025-002-00-9 RTECS: SD 6475000 Reg.nr.: 01-2119480139-34	Potassium permanganate ⚠ Ox. Sol. 2, H272; ⚠ Repr. 2, H361d; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302	≥3-<5%
---	---	--------

SECTION 4: First aid measures

4.1 Description of first aid measures

 · **After inhalation:** Supply fresh air; consult a doctor in case of complaints.

After skin contact:

Immediately wash with water and soap and rinse thoroughly. Wash contaminated clothing before reuse.

Generally the product does not irritate the skin.

If skin irritation continues, consult a doctor.

 · **After eye contact:** Rinse opened eye for several minutes under running water.

 · **After swallowing:** Call for a doctor immediately.

 · **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

 · **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

 · **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

 · **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

5.3 Advice for firefighters

 · **Protective equipment:** Do not inhale gases in case of fire or combustion.

(Contd. on page 3)

Safety data sheet according to UK REACH

Printing date 13.05.2025

Version number 3

Revision: 10.05.2025

Trade name: Potassium Permanganate 1N; 3-<4%

(Contd. of page 2)

· **Additional information** Keep receptacles cool with water spray.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Ensure adequate ventilation

· **6.2 Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to penetrate the ground/soil.

Do not allow to enter sewers/ surface or ground water.

In case of seepage into the ground inform responsible authorities.

· **6.3 Methods and material for containment and cleaning up:**

Collect the liquid with vacuum in a suitable container and absorb the remainder with a porous material (diatomite, acid binders, universal binders, etc).

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Store in cool, dry place in tightly closed receptacles.

Ensure good ventilation/exhaustion at the workplace.

Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.

· **Information about fire - and explosion protection:**

The product is not flammable.

Keep respiratory protective device available.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** *Prevent any seepage into the ground.*

· **Information about storage in one common storage facility:** *Not required.*

· **Further information about storage conditions:** *None.*

· **7.3 Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Additional information about design of technical facilities:** *No further data; see section 7.*

· **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Additional information:** *The lists valid during the making were used as basis.*

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

(Contd. on page 4)

Safety data sheet according to UK REACH

Printing date 13.05.2025

Version number 3

Revision: 10.05.2025

Trade name: Potassium Permanganate 1N; 3-<4%

(Contd. of page 3)

Avoid contact with the eyes and skin.

· **Respiratory protection:**



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter P2

· **Protection of hands:**

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation



Protective gloves

Rubber gloves

Avoid direct contact with the chemical/ the product/ the preparation by organisational measures.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Eye protection:**



Safety glasses

· **Body protection:** Protective work clothing

· **Limitation and supervision of exposure into the environment**

The product must not be released into the environment.

In case of unintended release of the product: See section 6 of the Safety Data Sheet.

· **Risk management measures** Keep good industrial hygiene.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **Molecular weight**

· **Appearance:**

Form: Fluid

Colour: Violet

· **Odour:** Odourless

· **Odour threshold:** Not determined.

· **pH-value at 20 °C:** 7-9

· **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: 100 °C

· **Flash point:** Not applicable.

· **Flammability** Not applicable.

· **Ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

(Contd. on page 5)

Safety data sheet according to UK REACH

Printing date 13.05.2025

Version number 3

Revision: 10.05.2025

Trade name: Potassium Permanganate 1N; 3-<4%

(Contd. of page 4)

· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Vapour pressure at 50 °C:	123 hPa
· Density at 20 °C:	1.02 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic at 20 °C:	0.995 mPas
Kinematic:	Not determined.
· Solvent separation test:	
Water:	96.5 %
Solids content:	3.5 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** See 10.3
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
No decomposition products known, more dangerous than the product as such.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Target organ information**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity**
Suspected of damaging the unborn child. Route of exposure: Oral.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

(Contd. on page 6)

Safety data sheet according to UK REACH

Printing date 13.05.2025

Version number 3

Revision: 10.05.2025

Trade name: Potassium Permanganate 1N; 3-<4%

(Contd. of page 5)

· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **Method**
- **Ecological information** Not available
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
 Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 Danger to drinking water if even extremely small quantities leak into the ground.
 Also poisonous for fish and plankton in water bodies.
 Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
 Reutilise if possible or contact a waste processors for recycling or safe disposal.
- **Uncleaned packaging:**
- **Recommendation:**
 Disposal must be made according to official regulations.
 Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14: Transport information

- | | |
|--|-----------------|
| · 14.1 UN-Number | |
| · DOT, ADR/RID, IMDG, IATA | Void |
| · 14.2 UN proper shipping name | |
| · ADR/RID, IMDG, IATA | Void |
| · 14.3 Transport hazard class(es) | |
| · ADR/RID, ADN, IMDG, IATA | |
| · Class | Void |
| · 14.4 Packing group | |
| · ADR/RID, IMDG, IATA | Void |
| · 14.5 Environmental hazards: | Not applicable. |

(Contd. on page 7)

Safety data sheet
according to UK REACH

Printing date 13.05.2025

Version number 3

Revision: 10.05.2025

Trade name: Potassium Permanganate 1N; 3-<4%

(Contd. of page 6)

- | | |
|--|-----------------|
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Void |

SECTION 15: Regulatory information

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

- **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

- **SARA Section 313 (specific toxic chemical listings)**

CAS: 7722-64-7	Potassium permanganate
----------------	------------------------

- **Prop 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

- **Poisons Act**

- **Regulated explosives precursors**

None of the ingredients is listed.

- **Regulated poisons**

None of the ingredients is listed.

- **Reportable explosives precursors**

None of the ingredients is listed.

- **Reportable poisons**

None of the ingredients is listed.

- **Chemical safety assessment**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **Seveso category E2** Hazardous to the Aquatic Environment

- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t

- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

- **National regulations:**

- **Technical instructions (air):**

Class	Share in %
Wasser	50-100
III	<5

- **Waterhazard class:** Water danger class 3 (Self-assessment): extremely hazardous for water.

- **Other regulations, limitations and prohibitive regulations**

0.0 g/l

0.00 %

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H272 May intensify fire; oxidiser.

(Contd. on page 8)

Safety data sheet according to UK REACH

Printing date 13.05.2025

Version number 3

Revision: 10.05.2025

Trade name: Potassium Permanganate 1N; 3-<4%

(Contd. of page 7)

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.

· **Department issuing SDS:** Q.A./Normative

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Ox. Sol. 2: Oxidizing solids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Repr. 2: Reproductive toxicity – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· **Sources**

Globally Harmonized System, GHS

ADR/RID, IMDG, IATA

PubChem : an open chemistry database at the National Institutes of Health (NIH)

ECHA : European Chemicals Agency

· *** Data compared to the previous version altered. .**