

# Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 22.06.2022

Version number 1

Revision Date 22.06.2022

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

- **1.1 Product identifier**
- **Trade name: Potassium Permanganate**
- **Article number:** AGR1215
- **EC number:**  
231-760-3
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation:** Laboratory Chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier.**  
Agar Scientific Ltd  
Parsonage Lane  
Stansted CM24 8GF  
United Kingdom  
sales@agarscientific.com  
Tel: +44 (0) 1279 813 519
- **Further information obtainable from:** Technical Support
- **1.4 Emergency telephone number:** 24 hours: +44 (0)1856 407333

## SECTION 2: Hazards identification

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



flame over circle

Ox. Sol. 2            H272 May intensify fire; oxidiser.



corrosion

Skin Corr. 1C            H314 Causes severe skin burns and eye damage.

Eye Dam. 1            H318 Causes serious eye damage.



environment

Aquatic Acute 1            H400 Very toxic to aquatic life.

Aquatic Chronic 1            H410 Very toxic to aquatic life with long lasting effects.



Acute Tox. 4            H302 Harmful if swallowed.

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

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**· Hazard pictograms**


GHS03 GHS05 GHS07 GHS09

**· Signal word** Danger

**· Hazard statements**

- H272 May intensify fire; oxidiser.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H410 Very toxic to aquatic life with long lasting effects.

**· Precautionary statements**

- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.
- P321 Specific treatment (see on this label).
- 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

**· 3.1 Chemical characterisation: Substances**
**· CAS No. Description**

Potassium Permanganate  
 Consisting of: 7722-64-7 potassium permanganate (100%)

**· Identification number(s)**
**· EC number:** 231-760-3

## SECTION 4: First aid measures

**· 4.1 Description of first aid measures**
**· General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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

**· After skin contact:**

Take off contaminated clothing immediately. Wash off with soap and plenty of water. consult a physician.

**· After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**· After swallowing:**

Call for a doctor immediately.

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.

**· 4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

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- **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.  
Dry powder, Sand
- **5.2 Special hazards arising from the substance or mixture**  
Potassium oxides, Manganese oxides.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus for firefighting if necessary.
- **Additional information** Use water spray to cool unopened containers.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective gloves and glasses.  
Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapours, mist or gas. Ensure adequate ventilation.
- **6.2 Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.  
Prevent further leakage or spillage if safe to do so.
- **6.3 Methods and material for containment and cleaning up:**  
Use neutralising agent.  
Dispose contaminated material as waste according to item 13.  
Contain spillage, sweep up and shovel. Collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.  
Keep in suitable, closed containers for disposal.
- **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**  
Thorough dedusting.  
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking.  
Keep away from heat and sources of ignition.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Keep container tightly closed in a dry and well-ventilated place. Store in a cool place.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

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## SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.

### · 8.2 Exposure controls

- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Remove all soiled and contaminated clothing  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes.  
 Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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

### · **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.

### · **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

### · **Eye protection:**



Tightly sealed goggles

## SECTION 9: Physical and chemical properties

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

#### · General Information

#### · Appearance:

Form: Crystalline powder

Colour: Dark violet

· Odour: Odourless

· Odour threshold: Not determined.

· pH-value: 7.2-9.7

#### · Change in condition

Melting point/freezing point: >240 °C

Initial boiling point and boiling range: Undetermined.

· Flash point: Not applicable.

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|  |   |
|--|---|
| · <b>Flammability (solid, gas):</b>                      | Product is not flammable.                     |
| · <b>Ignition temperature:</b>                           | >240 °C                                       |
| · <b>Decomposition temperature:</b>                      | >240 °C                                       |
| · <b>Auto-ignition temperature:</b>                      | Not determined.                               |
| · <b>Explosive properties:</b>                           | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                               |   |
| Lower:   | Not determined.                               |
| Upper:   | Not determined.                               |
| · <b>Vapour pressure:</b>                                | Not applicable.                               |
| · <b>Density at 20 °C:</b>                               | 2.71 g/cm <sup>3</sup>                        |
| · <b>Relative density</b>                                | Not determined.                               |
| · <b>Vapour density</b>                                  | Not applicable.                               |
| · <b>Evaporation rate</b>                                | Not applicable.                               |
| · <b>Solubility in / Miscibility with water at 0 °C:</b> | 28.3 g/l                                      |
| · <b>Partition coefficient: n-octanol/water:</b>         | Not determined.                               |
| · <b>Viscosity:</b>                                      |   |
| Dynamic:   | Not applicable.                               |
| Kinematic:   | Not applicable.                               |
| · <b>9.2 Other information</b>                           | No further relevant information available.    |

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used 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:**  
Strong reducing agents, Powdered metals, Peroxides, Zinc, Copper, Alcohols, Hydrogen fluoride, Acids, Sulfuric acid
- **10.6 Hazardous decomposition products:** Potassium oxides, Manganese oxides

## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**  
Harmful if swallowed.
- **Specific symptoms in biological assay:**
- **Skin corrosion/irritation**  
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**  
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological 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.

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- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **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.
- **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.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**  
 Water hazard 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.  
 Must not reach sewage water or drainage ditch undiluted or unneutralised.  
 Danger to drinking water if even extremely small quantities leak into the ground.  
 Also poisonous for fish and plankton in water bodies.  
 Very 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.
- **Recommendation:** Disposal must be made according to official regulations.

## SECTION 14: Transport information

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-Number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                | UN1490  |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul> | 1490 POTASSIUM PERMANGANATE,<br>ENVIRONMENTALLY HAZARDOUS<br>POTASSIUM PERMANGANATE |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR</b></li> </ul>                           | 5.1 Oxidising substances.   |
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|   |   |
|---|---|
| · Label   | 5.1   |
| · IMDG, IATA  |   |
|  |   |
| · Class   | 5.1 Oxidising substances.   |
| · Label   | 5.1   |
| · 14.4 Packing group  |   |
| · ADR, IMDG, IATA   | II  |
| · 14.5 Environmental hazards:   | Environmentally hazardous substance, solid  |
| · Special marking (ADR):  | Symbol (fish and tree)  |
| · 14.6 Special precautions for user   | Warning: Oxidising substances.  |
| · Hazard identification number (Kemler code):                                     | 50  |
| · EMS Number:   | F-H,S-Q   |
| · Segregation groups  | Permanganates   |
| · Stowage Category  | D   |
| · Segregation Code  | SG38 Stow "separated from" SGG2-ammonium compounds.<br>SG49 Stow "separated from" SGG6-cyanides<br>SG60 Stow "separated from" SGG16-peroxides |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code         | Not applicable.   |
| · Transport/Additional information:   |   |
| · ADR   |   |
| · Limited quantities (LQ)   | 1 kg  |
| · Excepted quantities (EQ)  | Code: E2<br>Maximum net quantity per inner packaging: 30 g<br>Maximum net quantity per outer packaging: 500 g                                 |
| · Transport category  | 2   |
| · Tunnel restriction code   | E   |
| · IMDG  |   |
| · Limited quantities (LQ)   | 1 kg  |
| · Excepted quantities (EQ)  | Code: E2<br>Maximum net quantity per inner packaging: 30 g<br>Maximum net quantity per outer packaging: 500 g                                 |
| · UN "Model Regulation":  | UN 1490 POTASSIUM PERMANGANATE, 5.1, II, ENVIRONMENTALLY HAZARDOUS  |

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Directive 2012/18/EU
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category**  
P8 OXIDISING LIQUIDS AND SOLIDS  
E1 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

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- **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 and should assist the user with the safe handling of this material when properly applied. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Sales department

- **Contact:**

sales@agarscientific.com

Tel: +44 (0) 1279 813 519

- **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

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Ox. Sol. 2: Oxidizing solids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

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

- **\* Data compared to the previous version altered.**

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