

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Potassium permanganate, 100 g**

Print date: 14.04.2015

Product code: 9991525

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Potassium permanganate, 100 g

CAS No: 7722-64-7  
Index No: 025-002-00-9  
EC No: 231-760-3

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

Laboratory chemicals

**1.3. Details of the supplier of the safety data sheet****Seller**

Company name: CONATEX-DIDACTIC Lehrmittel GmbH  
Street: Im Forstgarten 1  
Place: D-66459 Kirkel  
Internet: www.conatex.com

**Supplier**

Company name: Carbolution Chemicals GmbH  
Street: Im Stadtwald, Gebäude A1.2  
Place: D-66123 Saarbrücken  
Contact person: Dr. Michael Bauer Telephone: +49 (0)681 302-71232  
e-mail: michael.bauer@carbolution-chemicals.de  
Internet: www.carbolution-chemicals.de

**1.4. Emergency telephone number:** +49 (0)681 302-71232**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: O - Oxidizing, Xn - Harmful, N - Dangerous for the environment

R phrases:

Contact with combustible material may cause fire.

Harmful if swallowed.

Very toxic to aquatic organisms.

May cause long-term adverse effects in the aquatic environment.

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard categories:

Oxidising solid: Ox. Sol. 2

Acute toxicity: Acute Tox. 4

Hazardous to the aquatic environment: Aquatic Acute 1 (M-Factor = 1)

Hazardous to the aquatic environment: Aquatic Chronic 1 (M-Factor = 1)

Hazard Statements:

May intensify fire; oxidiser.

Harmful if swallowed.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

**2.2. Label elements**

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#### Hazardous components which must be listed on the label

potassium permanganate

Signal word:

Danger

Pictograms:

GHS03-GHS07-GHS09



#### Hazard statements

- H272 May intensify fire; oxidiser.  
 H302 Harmful if swallowed.  
 H410 Very toxic to aquatic life with long lasting effects.

#### Precautionary statements

- P273 Avoid release to the environment.  
 P501 Dispose of contents/container to Waste management.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Sum formula: KMnO4  
 Molecular weight: 158,03

#### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
231-760-3	potassium permanganate	100 %
7722-64-7	O - Oxidizing, Xn - Harmful, N - Dangerous for the environment R8-22-50-53	
025-002-00-9	Ox. Sol. 2, Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1; H272 H302 H400 H410	

Full text of R-, H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### After inhalation

Provide fresh air.

##### After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

##### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

##### After ingestion

Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

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

No data available

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#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

###### Suitable extinguishing media

 Water spray jet, Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder.

##### 5.2. Special hazards arising from the substance or mixture

Combustible. Vapours can form explosive mixtures with air.

##### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

##### Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

#### SECTION 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

##### 6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

##### 6.3. Methods and material for containment and cleaning up

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

#### SECTION 7: Handling and storage

##### 7.1. Precautions for safe handling

###### Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid generation of dust. Do not breathe dust.

###### Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air. Only use the material in places where open light, fire and other flammable sources can be kept away.

##### 7.2. Conditions for safe storage, including any incompatibilities

###### Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

###### Advice on storage compatibility

Do not store together with: Material, oxygen-rich, oxidizing. Pyrophoric or self-heating substances.

#### SECTION 8: Exposure controls/personal protection

##### 8.1. Control parameters

###### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
-	Manganese: its inorganic compounds (as Mn)	-	0.5		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

##### 8.2. Exposure controls

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#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

#### Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

#### Eye/face protection

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

#### Hand protection

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

#### Skin protection

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

#### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

### SECTION 9: Physical and chemical properties

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

Physical state:	solid
Colour:	dark violet
Odour:	No data available

pH-Value:	No data available
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#### Changes in the physical state

Melting point:	240 °C
Initial boiling point and boiling range:	No data available
Sublimation point:	No data available
Softening point:	No data available
Flash point:	No data available

#### Flammability

Solid:	No data available
Gas:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Ignition temperature:	No data available

#### Auto-ignition temperature

Solid:	No data available
Gas:	No data available
Vapour pressure:	No data available
Vapour pressure:	No data available
Density:	2,71 g/cm <sup>3</sup>
Water solubility:	No data available

#### Test method

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Partition coefficient:	No data available
Viscosity / dynamic:	No data available
Viscosity / kinematic:	No data available
Flow time:	No data available
Vapour density:	No data available
Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	No data available

#### 9.2. Other information

Solid content:	No data available
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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available

#### 10.3. Possibility of hazardous reactions

No data available

#### 10.4. Conditions to avoid

Risk of explosion by shock, friction, fire or other sources of ignition. Remove all sources of ignition. Keep away from heat. Ignition hazard. No data available

#### 10.5. Incompatible materials

Keep away from combustible material. Oxidizing agents, strong.

#### 10.6. Hazardous decomposition products

No data available

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Toxicokinetics, metabolism and distribution

Toxicological data are not available.

##### Acute toxicity

Acute oral toxicity.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
7722-64-7	potassium permanganate				
	oral	LD50	750 mg/kg	Ratte	

##### Irritation and corrosivity

Harmful if inhaled. Harmful if swallowed. Harmful in contact with skin. Frequently or prolonged contact with skin may cause dermal irritation. Risk of serious damage to eyes.

##### Sensitising effects

No data available

##### Severe effects after repeated or prolonged exposure

No data available

##### Carcinogenic/mutagenic/toxic effects for reproduction

Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

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**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

This mixture is classified as hazardous according to 1999/45/EC.

**Practical experience****Observations relevant to classification**

No data available

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

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**12.2. Persistence and degradability**

No data available

**12.3. Bioaccumulative potential**

No data available

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

No data available

**12.6. Other adverse effects**

No data available

**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances  
Classified as hazardous waste.

**Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

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#### SECTION 14: Transport information

##### Land transport (ADR/RID)

<b>14.1. UN number:</b>	UN1490
<b>14.2. UN proper shipping name:</b>	POTASSIUM PERMANGANATE
<b>14.3. Transport hazard class(es):</b>	5.1
<b>14.4. Packing group:</b>	II
Hazard label:	5.1
Classification code:	O2
Limited quantity:	1 kg
Transport category:	2
Tunnel restriction code:	E

##### Other applicable information (land transport)

E2

##### Inland waterways transport (ADN)

<b>14.1. UN number:</b>	UN1490
<b>14.2. UN proper shipping name:</b>	POTASSIUM PERMANGANATE
<b>14.3. Transport hazard class(es):</b>	5.1
<b>14.4. Packing group:</b>	II
Hazard label:	5.1
Classification code:	O2
Limited quantity:	1 kg

##### Other applicable information (inland waterways transport)

E2

##### Marine transport (IMDG)

<b>14.1. UN number:</b>	UN1490
<b>14.2. UN proper shipping name:</b>	POTASSIUM PERMANGANATE
<b>14.3. Transport hazard class(es):</b>	5.1
<b>14.4. Packing group:</b>	II
Hazard label:	5.1
Special Provisions:	-
Limited quantity:	1 kg
EmS:	F-H, S-Q

##### Other applicable information (marine transport)

E2

##### Air transport (ICAO)

<b>14.1. UN number:</b>	UN1490
<b>14.2. UN proper shipping name:</b>	POTASSIUM PERMANGANATE
<b>14.3. Transport hazard class(es):</b>	5.1
<b>14.4. Packing group:</b>	II
Hazard label:	5.1
Limited quantity Passenger:	2.5 kg
IATA-packing instructions - Passenger:	558
IATA-max. quantity - Passenger:	5 kg
IATA-packing instructions - Cargo:	562
IATA-max. quantity - Cargo:	25 kg

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#### Other applicable information (air transport)

E2  
: Y544

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:        yes

### SECTION 15: Regulatory information

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

##### EU regulatory information

##### Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

##### National regulatory information

Water contaminating class (D):        3 - highly water contaminating

### SECTION 16: Other information

#### Relevant R-phrases (Number and full text)

- |    |   |
|----|---|
| 08 | Contact with combustible material may cause fire.               |
| 22 | Harmful if swallowed.   |
| 50 | Very toxic to aquatic organisms.                                |
| 53 | May cause long-term adverse effects in the aquatic environment. |

#### Relevant H- and EUH-phrases (Number and full text)

- |      |   |
|------|---|
| H272 | May intensify fire; oxidiser.                         |
| H302 | Harmful if swallowed.                                 |
| H400 | Very toxic to aquatic life.                           |
| H410 | Very toxic to aquatic life with long lasting effects. |