



Trade name: Kaliumpermanganat / Sigma-Aldrich GmbH

Substance number: 714864

Version: 2 / CH

Date revised: 22.06.12

Replaces Version: - / CH

Date of printing: 22.06.12

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Kaliumpermanganat / Sigma-Aldrich GmbH
Item-No. 71486404

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

Use of the substance/preparation

Chemical

1.3. Details of the supplier of the safety data sheet

Address

Hänseler AG
Industriestrasse 35
9101 Herisau
Telephone no. 0041 (0)71 353 58 58
E-mail address of sdb@haenseler.ch
person responsible
for this SDS

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

2. Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Ox. Sol. 2	H272
Acute Tox. 4	H302
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Classification in accordance with EC directives

Classification O, R8
Xn, R22
N, R50/53

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal Word

Danger

Hazard statements

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



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Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Labelling in accordance with EC directives 1999/45/EC and 67/548/EEC

The product is classified and labelled in accordance with EC directives/the relevant national laws.

Hazard symbols

Oxidizing



Dangerous for the environment



Harmful

R phrases

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

S phrases

57 Use appropriate container to avoid environmental contamination.
 60 This material and its container must be disposed of as hazardous waste.
 61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Hazardous component(s) to be indicated on label

contains Potassium permanganate

3. Composition/information on ingredients**Molecular weight**

Value 158.03 g/mol

Hazardous ingredients**Potassium permanganate**

CAS No. 7722-64-7
 EINECS no. 231-760-3
 Concentration >= 50 %
 Classification Xn, R22
 O, R8
 N, R50/53

Classification (Regulation (EC) No. 1272/2008)

Ox. Sol. 2 H272
 Acute Tox. 4 H302
 Aquatic Acute 1 H400
 Aquatic Chronic 1 H410

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



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General information

Remove contaminated clothing immediately and dispose of safely.

After inhalation

Ensure supply of fresh air. Take medical treatment. If the patient is likely to become unconscious, place and transport in stable sideways position. If necessary, give oxygen

After skin contact

Wash skin thoroughly with water (15 min.). Consult a doctor if skin irritation persists.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Shield unaffected eye. Eye treatment by an Occulist.

After ingestion

Rinse out mouth and give plenty of water to drink. Do not induce vomiting - aspiration hazard. Summon a doctor immediately. If patient is conscious, give liquids containing calcium or magnesium (e.g. milk, dissolved preparations containing calcium or magnesium).

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

Irritation of mucosa, Chemical burn, Nausea, Gastrointestinal complaints, CNS Disturbance

5. Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Extinguishing measures to suit surroundings, Water spray jet

5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible.

5.3. Advice for firefighters**Special protective equipment for fire-fighting**

Use self-contained breathing apparatus.

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

Wear protective equipment. Keep away unprotected persons.

6.2. Environmental precautions

Do not allow to enter drains or waterways.

6.3. Methods and material for containment and cleaning up

Pick up mechanically. Rinse away rest with warm water. When picked up, treat material as prescribed under heading "Disposal".

7. Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Keep container tightly closed. Avoid dust formation.

Advice on protection against fire and explosion

The product is not combustible. Oxidizing

7.2. Conditions for safe storage, including any incompatibilities



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Recommended storage temperature

Value 15 - 25 °C

Requirements for storage rooms and vessels

Only use containers that are approved specifically for the substance/product.

Hints on storage assembly

Do not store with combustible materials. Do not store with acids.

Further information on storage conditions

Keep container tightly closed, cool and dry. Protect from direct sunlight. Protect from atmospheric moisture and water.

8. Exposure controls/personal protection**8.1. Control parameters****Exposure limit values****Potassium permanganate**

List	SUVA	
Type	MAK	
Value	0,5	mg/m ³
Pregnancy group: C; Status: 2011; Remarks: BP		

8.2. Exposure controls**Exposure controls**

See chapter 7. No measures exceeding the ones mentioned are necessary.

General protective and hygiene measures

Keep away from food-stuffs, beverages and feed-stocks. Wash hands before breaks and after work. Avoid contact with eyes and skin. Hold eye wash fountain available. Do not inhale dust/fumes/mist. At work do not eat, drink, smoke or take drugs.

Respiratory protection

Breathing apparatus in the event of aerosol, mist or fume formation. Particle filter P2

Hand protection

Protective gloves		
Appropriate Material	Natural Latex	
Material thickness	0.5	mm
Penetrating time	>= 8	h
Appropriate Material	Polychloroprene	
Material thickness	0.5	mm
Penetrating time	>= 8	h
Appropriate Material	nitrile rubber - NBR	
Material thickness	0.35	mm
Penetrating time	>= 8	h
Appropriate Material	Fluoro carbon rubber - FKM	
Material thickness	0.4	mm
Penetrating time	>= 8	h
Appropriate Material	PVC	
Material thickness	0.5	mm
Penetrating time	>= 8	h

Eye protection

Safety glasses

Body protection

Protective clothing



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9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	crystalline		
Colour	violet		
Odour	odourless		
pH			
Value	7	to	9
Concentration/H ₂ O	20	g/l	
Temperature	20	°C	
Melting point			
Value	> 240		°C
method	DIN 51761		
Boiling point			
Remarks	Not applicable		
Flash point			
Remarks	Not applicable		
Flammability	non flammable		
Vapour pressure			
Value	< 0.01		hPa
Temperature	20	°C	
Density			
Value	2.703		g/cm ³
Temperature	20	°C	
Solubility in water			
Value	64		g/l
Temperature	20	°C	
Thermal decomposition			
Value	240		°C

9.2. Other information

Bulk density			
Value	appr. 1300	to	1600 g/l

Other information

The product is not dangerous for explosions.

10. Stability and reactivity

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat. Do not use a full water jet - danger of dust explosion !

Thermal decomposition

Value	240	°C
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10.5. Incompatible materials

Reactions with metals in powder form. Reactions with reducing agents. Reactions with acids. Reactions with organic substances. Reactions with combustible substances. Reaction with ammonium compounds, Ammonia, Reacts with hydrogen peroxide (H₂O₂). hydrogen fluoride, sulphur, Reactions with alcohols.



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10.6. Hazardous decomposition products

Oxygen, Flammable gases/vapours

11. Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

Species	rat		
LD50	1090		mg/kg

Skin corrosion/irritation

Remarks	Corrosive
Remarks	Irritating to skin.

Serious eye damage/irritation

Remarks	Corrosive
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Sensitization

Remarks	No sensitisation effect known.
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Experience in practice

Ingestion of aqueous solution causes burns in: Mouth. Throat. Perforation of gullet and stomach.

12. Ecological information

12.1. Toxicity

Fish toxicity

Species	goldfish (Carassius auratus)		
LC50	3.6		mg/l
Duration of exposure	96	h	
Species	Ictalurus punctatus		
LC50	0.75		mg/l
Duration of exposure	96	h	

Daphnia toxicity

Species	Daphnia magna		
EC0	0.63		mg/l

12.6. Other adverse effects

General information / ecology

Very toxic for aquatic organisms. Do not allow it to reach ground water, water bodies or sewage system. Product is hazardous to water. Hazard for drinking water supplies.

13. Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

EWC waste code	No not dispose with rubbish.
EWC waste code	Should not be released into the sanitary sewer system.
In accordance with regulations for special waste, must be taken to an authorised special waste disposal site.	

Disposal recommendations for packaging

Disposal in compliance with local and national regulations.

14. Transport information



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Land transport ADR/RID**14.1. UN number**

UN 1490

14.2. UN proper shipping name

POTASSIUM PERMANGANATE

14.3. Transport hazard class(es)

Class 5.1

Label 5.1

14.4. Packing group

Packing group II

Marine transport IMDG/GGVSee**14.1. UN number**

UN 1490

14.2. UN proper shipping name

POTASSIUM PERMANGANATE

14.3. Transport hazard class(es)

Class 5.1

14.4. Packing group

Packing group II

Air transport ICAO/IATA**14.1. UN number**

UN 1490

14.2. UN proper shipping name

POTASSIUM PERMANGANATE

14.3. Transport hazard class(es)

Class 5.1

14.4. Packing group

Packing group II

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

Swiss Toxicity Class 3

SFOPH T no. G-2318

16. Other information**R-phrases listed in chapter 3**

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

Hazard statements listed in chapter 3

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.

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.



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