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

1.1. Product identifier

Kalii permanganas crist

Item No. 06486400

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/Manufacturer

Hänseler AG
Industriestrasse 35
9100 Herisau

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

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

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

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

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008
For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Danger

Hazard statements

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

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P221	Take any precaution to avoid mixing with combustibles...
P264.1	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P501.3	Disposal in compliance with local and national regulations.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains Potassium permanganate

SECTION 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	
Registration no.	01-2119480139-34-0000	
Concentration	>= 54	%

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

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

SECTION 4: First aid measures

4.1. Description of first aid measures

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, disolved 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

SECTION 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.

SECTION 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 Section 13 "Disposal".

SECTION 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

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.

Storage classes

Storage class according to TRGS 510	5.1B	Oxidising hazardous substances
Storage category (Switzerland)	5	Oxidizing substances, organic peroxides

Further information on storage conditions

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Potassium permanganate

List	SUVA	
Type	MAK	
Value	0,5	mg/m³

Pregnancy group: S; Status: 2017; Remarks: B P SSc; ZNSKT HU; NIOSH

8.2. Exposure controls

Exposure controls

See Section 7. No measures exeeding the ones mentioned 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 skin and eyes. 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
Breakthrough time	>=	8	h
Appropriate Material	Polychloroprene		
Material thickness		0.5	mm
Breakthrough time	>=	8	h
Appropriate Material	nitrile rubber - NBR		
Material thickness		0.35	mm
Breakthrough time	>=	8	h
Appropriate Material	Fluoro carbon rubber - FKM		
Material thickness		0.4	mm
Breakthrough time	>=	8	h
Appropriate Material	PVC		
Material thickness		0.5	mm
Breakthrough time	>=	8	h

Eye protection

Safety glasses

Body protection

Protective clothing

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	solid
Colour	violet
Odour	odourless

pH value

Value	7	to	9
Concentration/H2O	20	g/l	
Temperature	20	°C	

Melting point

Value	240	°C
Method	DIN 51761	

Initial boiling point and boiling range

Remarks Not applicable

Flash point

Value	°C
Remarks	Not applicable

Flammability (solid, gas)

non flammable

Vapour pressure

Value	<	0.01		hPa
Temperature		20	°C	

Density

Value	2.703		g/cm³
Temperature	20	°C	

Solubility in water

Value	64	g/l

Oxidising properties

evaluation	oxidizing

9.2. Other information

Bulk density

Value	appr.	1300	to	1600	g/l

Other information

The product is capable of dust explosions.

SECTION 10: Stability and reactivity

10.1. Reactivity

Oxidising agents

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

Possible incompatibility with materials lister under section 10.5.

10.4. Conditions to avoid

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

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. Aldehydes, Reducing agents, Acids, Aluminium, Arsenic

10.6. Hazardous decomposition products

Oxygen, Flammable gases/vapours

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

ATE	1'090	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	

Acute oral toxicity (Components)

Potassium permanganate

Species	rat	
LD50	1090	mg/kg

Skin corrosion/irritation

Remarks	Corrosive

Remarks Irritating to skin.

Serious eye damage/irritation

Remarks Corrosive

Sensitization

Remarks No sensitation effect known.

Experience in practice

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

SECTION 12: Ecological information

12.1. Toxicity

Fish toxicity (Components)

Potassium permanganate

Species	Ictalurus punctatus		
LC50	0.75		mg/l
Duration of exposure	96	h	

Potassium permanganate

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

Daphnia toxicity (Components)

Potassium permanganate

Species	Daphnia	
EC0	0.63	mg/l

12.5. Results of PBT and vPvB assessment

Evaluation of persistance and bioaccumulation potential

The Substance doesn't meets PBT/vPvB-criterions

12.6. Other adverse effects

General information / ecology

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

SECTION 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.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	E		
14.1. UN number	1490	1490	1490
14.2. UN proper shipping name	POTASSIUM PERMANGANATE	POTASSIUM PERMANGANATE	POTASSIUM PERMANGANATE
14.3. Transport hazard class(es)	5.1	5.1	5.1
Label			
14.4. Packing group	II	II	II
Limited Quantity	1 kg		
Transport category	2		
14.5. Environmental hazards	 ENVIRONMENTALLY HAZARDOUS	Marine Pollutant 	 ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

Water Hazard Class (Germany)

Water Hazard Class (Germany)	WGK 3
Remarks	Derivation of WGK according to Annex 1 No. 5.2 AwSV

National regulations Switzerland

Swiss Toxicity Class	3
SFOPH T no.	G-2318

SECTION 16: Other information

Hazard statements listed in Chapter 3

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

CLP categories listed in Chapter 3

Acute Tox. 4	Acute toxicity, Category 4

Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic, Category 1
Ox. Sol. 2	Oxidising solid, Category 2

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.