

## Chemical Safety Data Sheet MSDS / SDS

**SODIUM PERMANGANATE**

Revision Date:2026-05-30 Revision Number:1

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

Product name : SODIUM PERMANGANATE  
CBnumber : CB5683251  
CAS : 10101-50-5  
EINECS Number : 233-251-1  
Synonyms : sodium permanganate,Sodium Permanganate Solution

**Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

**Company Identification**

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 010-86108875

**SECTION 2: Hazards identification****GHS Label elements, including precautionary statements**

Symbol(GHS)



Signal word

Danger

**Precautionary statements**

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

**Hazard statements**

H272 May intensify fire; oxidizer

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

H410 Very toxic to aquatic life with long lasting effects

## SECTION 3: Composition/information on ingredients

### Substance

Product name	: SODIUM PERMANGANATE
Synonyms	: sodium permanganate, Sodium Permanganate Solution
CAS	: 10101-50-5
EC number	: 233-251-1
MF	: MnNaO4
MW	: 141.925

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

No data available

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

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

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

No data available

### 4.4 Notes to physician

No data available

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

No data available

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

Sodium oxides

Manganese/manganese oxides

### 5.3 Advice for firefighters

No data available

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## SECTION 6: Accidental release measures

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

For personal protection see section 8.

### 6.2 Environmental precautions

No data available

### 6.3 Methods and materials for containment and cleaning up

No data available

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

For precautions see section 2.2.

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

No data available

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with workplace control parameters

['Component', 'CAS-No.', 'Value', 'Control parameters', 'Basis']	['Sodium permanganate', '10101-50- 5', 'PC-TWA', '0.15 mg/m3', 'Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.']
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### 8.2 Exposure controls

#### Personal protective equipment

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

##### Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: (KCL 740 / Aldrich Z677272, Size M)

##### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved  
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gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### Control of environmental exposure

Prevent product from entering drains.

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## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

a) Physical state	liquid
b) Color	dark, purple
c) Odor	No data available
d) Melting point/freezing point	No data available
e) Initial boiling point and boiling range	100 °C
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	No data available
h) Flash point	No data available
i) Autoignition temperature	No data available
j) Decomposition temperature	No data available
k) pH	6 - 8
l) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m) Water solubility	very soluble H <sub>2</sub> O; decomposed by alcohol [MER06]
n) Partition coefficient n-octanol/water	No data available
o) Vapor pressure	0Pa at 25°C
p) Density	1.391 g/cm <sup>3</sup>
Relative density	1.391 g/mL at 25 °C
q) Relative vapor density	No data available
r) Particle characteristics	No data available
s) Explosive properties	Not classified as explosive.
t) Oxidizing properties	none
Solubility	reacts with ethanol

### 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Chemical stability

No data available

## 10.2 Possibility of hazardous reactions

No data available

## 10.3 Conditions to avoid

No data available

## 10.4 Incompatible materials

Powdered metals, Strong oxidizing agents, Strong acids, Organic materials, Strong reducing agents

## 10.5 Hazardous decomposition products

In the event of fire: see section 5

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# SECTION 11: Toxicological information

## 11.1 Information on toxicological effects

### Mixture Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: No data available

### Skin corrosion/irritation

Remarks: Mixture causes burns.

### Serious eye damage/eye irritation

Classified based on available data. For more details, see section 2

### Respiratory or skin sensitization

Classified based on available data. For more details, see section 2

### Germ cell mutagenicity

Classified based on available data. For more details, see section 2

### Carcinogenicity

Classified based on available data. For more details, see section 2

### Reproductive toxicity

Classified based on available data. For more details, see section 2

### Specific target organ toxicity - single exposure

Classified based on available data. For more details, see section 2

### Specific target organ toxicity - repeated exposure

Classified based on available data. For more details, see section 2

### Aspiration hazard

Classified based on available data. For more details, see section 2

## 11.2 Additional Information

Men exposed to manganese dusts showed a decrease in fertility. Chronic manganese poisoning primarily involves the central nervous system. Early symptoms include languor, sleepiness and weakness in the legs. A stolid mask-like appearance of the face, emotional disturbances such as uncontrollable laughter and a spastic gait with tendency to fall in walking are findings in more advanced cases. High incidence of pneumonia has been found in workers exposed to the dust or fume of some manganese compounds., Material is extremely destructive to

tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

#### **Components Sodium permanganate**

##### **Acute toxicity**

Oral: No data available

Inhalation: No data available

Dermal: No data available

##### **Skin corrosion/irritation**

Remarks: No data available

##### **Serious eye damage/eye irritation**

Remarks: No data available

##### **Respiratory or skin sensitization**

Classified based on available data. For more details, see section 2

##### **Germ cell mutagenicity**

Classified based on available data. For more details, see section 2

##### **Carcinogenicity**

Classified based on available data. For more details, see section 2

##### **Reproductive toxicity**

Classified based on available data. For more details, see section 2

##### **Specific target organ toxicity - single exposure**

Classified based on available data. For more details, see section 2

##### **Specific target organ toxicity - repeated exposure**

Classified based on available data. For more details, see section 2

##### **Aspiration hazard**

Classified based on available data. For more details, see section 2

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## SECTION 12: Ecological information

### **12.1 Toxicity**

#### **Mixture**

No data available

### **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

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## 12.6 Endocrine disrupting properties

No data available

## 12.7 Other adverse effects

No data available

### Components Sodium permanganate

No data available

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# SECTION 13: Disposal considerations

## 13.1 Waste treatment methods

No data available

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# SECTION 14: Transport information

## 14.1 UN number

ADR/RID: 3214

IMDG: 3214

IATA-DGR: 3214

## 14.2 UN proper shipping name

ADR/RID: PERMANGANATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. (Sodium permanganate) (Sodium permanganate)

IMDG: PERMANGANATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. (Sodium permanganate) (Sodium permanganate)

IATA-DGR: Permanganates, inorganic, aqueous solution, n.o.s. (Sodium permanganate) (Sodium permanganate)

## 14.3 Transport hazard class(es)

ADR/RID: 5.1

IMDG: 5.1

IATA-DGR: 5.1

## 14.4 Packaging group

ADR/RID: II

IMDG: II

IATA-DGR: II

## 14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA-DGR: no

## 14.6 Special precautions for user

Based on chemical properties, choose appropriate tools and conditions of transport.

Transporting tools shall be equipped with appropriate and sufficient firefighting equipment and emergency leaking installations. If transporting by road, please go along the specified route.

## 14.7 Incompatible materials

Powdered metals, Strong oxidizing agents, Strong acids, Organic materials, Strong reducing agents

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# SECTION 15: Regulatory information

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

National regulatory information

Law on the Prevention and Control of Occupational Diseases

Other regulations

Please pay attention on the waste treatment should also comply with local regulations requirement.

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# SECTION 16: Other information

## Abbreviations and acronyms

CAS: Chemical Abstracts Service

TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

EC50: Effective Concentration 50%

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

DOT: US Department of Transportation

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

### Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.