



SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Date of issue: 02/10/2015

Version 1.0

SECTION 1. Identification

Product identifier

Product number	PX1550
Product name	Potassium Permanganate GR ACS
CAS-No.	7722-64-7

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

Identified uses	Reagent for analysis
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Details of the supplier of the safety data sheet

Company	EMD Millipore Corporation 290 Concord Road, Billerica, MA 01821, United States of America General Inquiries: +1-978-715-4321 Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)
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Emergency telephone	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week
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SECTION 2. Hazards identification

GHS Classification

Oxidizing solid, Category 2, H272

Acute toxicity, Category 4, Oral, H302

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms



Signal Word

Danger

Hazard Statements

H272 May intensify fire; oxidizer.

H302 Harmful if swallowed.

Precautionary Statements

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P210 Keep away from heat.
P220 Keep/Store away from clothing/ combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
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.
P330 Rinse mouth.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Formula KMnO_4 (Hill)
Molar mass 158.03 g/mol

Hazardous ingredients

Chemical Name (Concentration)

CAS-No.

Potassium permanganate ($\geq 90\%$ - $\leq 100\%$)

7722-64-7

Exact percentages are being withheld as a trade secret.

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air.

Skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Eye contact

After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist if necessary.

Ingestion

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Irritation and corrosion, Cough, Shortness of breath, Nausea, Vomiting
Risk of corneal clouding.

Indication of any immediate medical attention and special treatment needed

No information available.

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SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Not combustible.

Has a fire-promoting effect due to release of oxygen.

Ambient fire may liberate hazardous vapors.

Advice for firefighters

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Conditions for safe storage, including any incompatibilities

Tightly closed. Dry. Do not store near combustible materials.

Store at room temperature.

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SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Ingredients

Basis	Value	Threshold limits	Remarks
<i>Potassium permanganate 7722-64-7</i>			
ACGIH	Time Weighted Average (TWA):	0.2 mg/m ³	Expressed as: as Mn
NIOSH/GUIDE	Recommended exposure limit (REL):	1 mg/m ³	Form of exposure: Fume. Expressed as: as Mn
	Short Term Exposure Limit (STEL):	3 mg/m ³	Form of exposure: Fume. Expressed as: as Mn
OSHA_TRANS	Ceiling Limit Value:	5 mg/m ³	Expressed as: as Mn
Z1A	Ceiling Limit Value:	5 mg/m ³	Expressed as: as Mn

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Change contaminated clothing. Application of skin- protective barrier cream recommended.
Wash hands after working with substance.

Eye/face protection

Safety glasses

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other protective equipment:

protective clothing

Respiratory protection

required when dusts are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties

Physical state

solid

Color

violet

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Odor	odorless
Odor Threshold	Not applicable
pH	ca. 7 - 9 at 20 g/l 68 °F (20 °C)
Melting point	> 240 °C (decomposition)
Boiling point	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	The product is not flammable.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapor pressure	< 0.01 hPa at 68 °F (20 °C)
Relative vapor density	No information available.
Density	2.70 g/cm ³ at 68 °F (20 °C)
Relative density	No information available.
Water solubility	64 g/l at 68 °F (20 °C)
Partition coefficient: n-octanol/water	log Pow: -1.73 (calculated) (Lit.) Bioaccumulation is not expected.
Autoignition temperature	No information available.
Decomposition temperature	> 464 °F (> 240 °C)
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	The substance or mixture is classified as oxidizing with the category 2.

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Bulk density

ca. 1,300 - 1,600 kg/m³

SECTION 10. Stability and reactivity

Reactivity

strong oxidizing agent

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with:

powdered aluminum, Ammonia, ammonium compounds, arsenic, Chlorine, Dimethylformamide, acetic acid, Acetic anhydride, formaldehyde, oxidizable substances, Nitro compounds, phosphorus, pyridine, strong reducing agents, hydrochloric acid, sulfur, Titanium, sugars, ammonium nitrate

Alcohols, with, sulfuric acid

alkali salts, with, sulfuric acid

Risk of ignition or formation of inflammable gases or vapors with:

Acetaldehyde, Acetone, Alcohols, antimony, Aldehydes, Combustible Liquids, silanes, dimethyl sulfoxide, Ethylene glycol, ethanol, Hydrogen fluoride, organic solvent, glycerol, hydroxylamine, mineral acids, Organic Substances, oxalic acid, sulfuric acid, hydrogen sulfide, Triethylamine, hydrogen peroxide, carbon

glycerol, with, sulfuric acid

sulfuric acid, with, Organic Substances

Conditions to avoid

Strong heating (decomposition).

Incompatible materials

no information available

Hazardous decomposition products

no information available

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Eye contact, Skin contact, Ingestion

Acute oral toxicity

LD50 Rat: 750 mg/kg (RTECS)

absorption

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach., Nausea, Vomiting

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Acute inhalation toxicity

Symptoms: mucosal irritations, Cough, Shortness of breath, Inhalation may lead to the formation of oedemas in the respiratory tract.

Carcinogenicity

No indication of carcinogenic activity.

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information

Manganese compounds are generally only very slightly absorbable via the gastrointestinal tract.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

Ecotoxicity

Toxicity to fish

LC50 Ictalurus catus (catfish): 0.1 mg/l; 96 h (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates

EC50 Daphnia magna (Water flea): 0.056 mg/l; 48 h (ECOTOX Database)

Persistence and degradability

Biodegradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

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Partition coefficient: n-octanol/water

log Pow: -1.73

(calculated)

(Lit.) Bioaccumulation is not expected.

Mobility in soil

No information available.

Additional ecological information

Bactericidal effect. Hazard for drinking water supplies.

Discharge into the environment must be avoided.

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

UN number

UN 1490

Proper shipping name

POTASSIUM PERMANGANATE

Class

5.1

Packing group

II

Environmentally hazardous

--

Air transport (IATA)

UN number

UN 1490

Proper shipping name

POTASSIUM PERMANGANATE

Class

5.1

Packing group

II

Environmentally hazardous

--

Special precautions for user

no

Sea transport (IMDG)

UN number

UN 1490

Proper shipping name

POTASSIUM PERMANGANATE

Class

5.1

Packing group

II

Environmentally hazardous

--

Special precautions for user

yes

EmS

F-H S-Q

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SECTION 15. Regulatory information

United States of America

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

Ingredients

Potassium permanganate

7722-64-7

100 %

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Ingredients

Potassium permanganate

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Ingredients

Potassium permanganate

DEA List I

Not listed

DEA List II

Listed

Ingredients

Potassium permanganate

7722-64-7

US State Regulations

Massachusetts Right To Know

Ingredients

Potassium permanganate

Pennsylvania Right To Know

Ingredients

Potassium permanganate

New Jersey Right To Know

Ingredients

Potassium permanganate

California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

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Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

KOREA: Not in compliance with the inventory

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Labeling

Hazard pictograms



Signal Word

Danger

Hazard Statements

H272 May intensify fire; oxidizer.

H302 Harmful if swallowed.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

P221 Take any precaution to avoid mixing with combustibles, heavy-metal compounds, acids and alkalis.

P273 Avoid release to the environment.

Full text of H-Statements referred to under sections 2 and 3.

H272 May intensify fire; oxidizer.

H302 Harmful if swallowed.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

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The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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