



Centre Anti-Poison pour le Québec: (800) 463-5060

Tél. (Qc): (418) 660-8666 / 800-890-8666

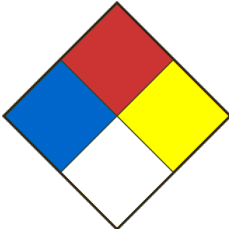
Fax. (Qc): (418) 660-8998

SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier POTASSIUM PERMANGANATE		Product Use Laboratory use	
Chemical formula KMnO ₄		Product code PR-0203; PP-0170	Molar weight 158,04
Chemical name / Commercial name / Synonymous SEL POTASSIQUE DE L'ACIDE PERMANGANIQUE, CAIROX, CRISTAUX DE CONDY, SEL POURPRE, MINERAL CAMÉLÉON			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666 CENTRE ANTI-POISON DU QUÉBEC 800-463-5060		
Date SDS 3/21/2023	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Oxidizing solids category 2 Acute toxicity - Oral category 4 Serious eye damage/eye irritation - Serious eye damage category 1 Skin corrosion/irritation - Skin corrosion category 1 Specific Target Organ Toxicity - Repeated exposure category 2 Specific target organ toxicity - Single exposure category 3
Signal Word	DANGER
Hazards statements (H)	H272 May intensify fire; oxidiser. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H336 May cause drowsiness or dizziness. H373 May cause damage to organs through prolonged or repeated exposure.
Precautionary statements (P)	P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P220 Keep/Store away from clothing and combustible materials. P264 Wash the areas of the body that have been in contact with the product after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection/face protection. P330 Rinse mouth. P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P260 Do not breathe dust / fume / gas / mist / vapors / spray. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician. P321 Specific treatment (see section 4 of the SDS and on this label). P363 Wash contaminated clothing before reuse. P405 Store locked up. P261 Avoid breathing dust / fume / gas / mist / vapors / spray. P271 Use only outdoors or in a well-ventilated area. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P314 Get medical advice/attention if you feel unwell. P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Significant; 4=Extreme)
	Health 3 Fire 0 Reactivity 2 Special danger OX

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Permanganate de potassium	7722-64-7	<=100

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Gastrointestinal disorders. Dark brown coloration of the skin. Chemical burns of the skin, eyes and respiratory and digestive mucous membranes. Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Ignition conditions	Risk of fire or explosion if heated or crushed in presence of combustible products. Dust can explode if mixed in the air and ignited in an enclosed space.
Suitable extinguishing media	Use water to extinguish the fire
Unsuitable extinguishing media	Do not use a heavy water stream. Do not use carbon dioxide. Do not use dry chemicals or foam. CO2 or halon can provide limited control.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: - Potassium oxides. - Manganese/manganese oxides.
Special fire and explosion hazards	Powerful oxidizer. Can ignite organic and combustible materials. May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personnel precautions, protective equipment	Evacuate personnel to safe areas. Pick up with a shovel or broom, taking care not to scatter dust. Clean and rinse with water. Ensure a good ventilation of the premises. Avoid dust formation. Avoid breathing vapors, mist or gas. When handling, wear appropriate safety equipment. Use a respirator as needed. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains.
--	--

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry place. Keep container tightly closed and store away from heat, moisture, combustible and organic products. Store in a well-ventilated area.
Methods of handling	Avoid contact with the skin, eyes and clothes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition. Avoid ingestion and inhalation. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Potassium permanganate	7722-64-7	TWA	0.200000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks				
		TWAEV	5.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	TWA 0.200000 mg/m3 Canada. British Columbia OEL			
	Adverse reproductive effect			
		TWAEV	0.200000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	0.2 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWAEV	0.2 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	0.2 mg/m3	Canada. British Columbia OEL
	Adverse reproductive effect			
		TWA	0.200000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.100000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.020000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.1 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.02 mg/m3	USA. ACGIH Threshold Limit Values (TLV)

Data source	Sigma-Aldrich (Millipore Sigma)
Ventilation	Fan.
Respiratory	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Use safety shoes.
Clothing	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid.
Appearance	Violet foncé-
Odour	inodore.
Odour threshold	Data not available
pH	7.2 -9.7 à 20 g/l à 20°C (68°F).
Melting point / Freezing point	240°C (dec)
Initial boiling point	Data not available
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	Data not available
Vapour density	Data not available
Relative density	2.71 g/cm ³
Solubility	Soluble dans l'eau (65g/L @ 20°C).
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	240°C
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Oxidizer: risk of fire in case of contact with combustible / organic substance. May react violently with incompatible substances.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Oxidizer. May react violently with incompatible substances.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid contamination with organic matter and other rapidly oxidizable substances. Avoid excessive heat. Avoid contact with incompatible materials. Solutions are unstable to light and air.
Incompatible material	Strong reducing agents (potassium, sodium, metal hydrides), acids, glycerin, alcohols, bases, bromides, ferrous and mercurous compounds, hypophosphites, hyposulphites, iodides, organic and combustible materials, fine metal powders and their alloys (aluminum, copper, lead, zinc), oxalates, peroxides, sulphites, heat and moisture.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - Potassium oxides. - Manganese/manganese oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

POTASSIUM PERMANGANATE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe irritation and burns that may cause permanent eye damage.
- Skin	Irritation and dermatitis. The skin can take a dark brown coloration.
- Inhalation	Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis and pulmonary edema that can lead to death.
Acute toxicity (Ingestion)	Brown Coloration of the digestive tract. Cough, noisy breathing, possibility of jaundice, oliguria, anuria, edema and possible necrosis of the mucous membranes of the mouth and pharynx, slowing of the pulse, shock (drop of blood pressure), methaemoglobinaemia, cyanosis, convulsions, collapse Respiratory, loss of consciousness, coma and can lead to death.
Chronic exposure effects / symptoms	Burning Sensation, dermatitis, nervous disorders, kidney damage, chest pain, cough, dyspnea, laryngitis, headache, dizziness, tearing, suffocation, noisy breathing, confusion, irritability, sweating, salivation, fatigue, Fever, anemia, methaemoglobinaemia, weight loss and loss of appetite, convulsions, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 750 mg/kg. LD50 Dermal - Rat - 2000 mg/kg
CL50 (specify species and route of entry)	LC50 - Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Toxicity to fish: LC50 - <i>Oncorhynchus mykiss</i> (rainbow trout) - 0.3 - 0.6 mg/l - 96.0 h. Toxicity to daphnia and other aquatic invertebrates: EC50 - <i>Daphnia</i> (water flea) - 0.084 mg/l - 48 h.
Persistence and degradability	The methods for determining biodegradability are not applicable to inorganic substances.
Bioaccumulative potential	Remarks: Can accumulate in aquatic organisms. Bioaccumulation <i>Lamellibranchia</i> (mussel) - Bioconcentration factor (BCF): < 10,000
Mobility in soil	Probable mobility due to its solubility in water.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	1490
UN Proper shipping name	PERMANGANATE DE POTASSIUM
Transport hazard class(es)	5.1 Oxidizing substances
Packing group	II
Limited quantity index	1kg
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Oxidizing solids category 2 Acute toxicity - Oral category 4 Serious eye damage/eye irritation - Serious eye damage category 1 Skin corrosion/irritation - Skin corrosion category 1 Specific Target Organ Toxicity - Repeated exposure category 2 Specific target organ toxicity - Single exposure category 3
--------------	--

SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Last Update: 3/21/2023