



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

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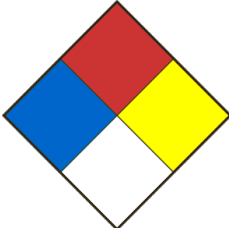
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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier POTASSIUM PERCHLORATE		Product Use Laboratory use	
Chemical formula KClO ₄		Product code PR-0201 ; PR-0992	Molar weight 138,55
Chemical name / Commercial name / Synonymous POTASSIUM CHLORATE, PERIODIN, POTASSIUM PERCHLORIDE			
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 2/19/2020	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Acute toxicity - Oral category 4 Oxidizing solids category 1	
Signal Word	DANGER	
Hazards statements (H)	H302 Harmful if swallowed. H271 May cause fire or explosion; strong oxidiser.	
Precautionary statements (P)	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. P330 Rinse mouth. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company. P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P220 Keep/Store away from clothing and combustible materials. P280 Wear protective gloves/protective clothing/eye protection/face protection. P283 Wear fire/ flame resistant/retardant clothing. P306 + P360 IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes. P370 + P378 In case of fire: Use water for extinction. P371 + P380 + P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P420 Store away from other materials.	
PICTOGRAMS		
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)	
	Health 2 Fire 0 Reactivity 1 Special danger OX	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Perchlorate de potassium	7778-74-7	<=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, rinse the mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	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 on contact with organic materials and reducing agents. Not flammable or combustible.
Suitable extinguishing media	Water.
Unsuitable extinguishing media	Data not available.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. - Potassium oxides. Hydrogen chloride gas.
Special fire and explosion hazards	May react violently with incompatible products (Ref Section 10). Mixture with one or more of these products may ignite easily with static discharge, friction or shock: potassium perchlorate, aluminum, aluminum fluoride, titanium dioxide, barium chromate, tungsten, barium chromate, titanium, boron, magnesium, iron, molybdenum, tantalum, sulfur, nickel. There may be an explosion if potassium perchlorate is mixed with one or more of these products: aluminum, barium nitrate, potassium nitrate, water, aluminum powder, titanium dioxide, ethylene glycol, lactose, metal powder, ethanol.
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 / Personal precautions, protective equipment	Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Pick up with a shovel or broom, taking care not to scatter dust. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Keep container tightly closed in a dry and well-ventilated place. Hygroscopic. Store in cool place. Do not store near combustible materials.
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.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Control	Value	Basis
POTASSIUM PERCHLORATE	7778-74-7	TLV, TWA, STEL	No data available	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TLV, TWA, STEL	No data available	Canada. British Columbia OEL
		TLV, TWA, STEL	No data available	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

Ventilation	Use 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	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	Cristalline blanche.
Odour	inodore.
Odour threshold	Data not available
pH	5.0 - 6.5 à 13.9 g/l à 25 °C.
Melting point / Freezing point	400°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	2.52g/cm ³
Solubility	Soluble dans l'eau (17-20 g/L à 20°C). Insoluble dans l'alcool et l'éther.
Partition coefficient water/n-octanol	log Pow : -7.18-
Auto-ignition temperature	Data not available
Decomposition temperature	> 400°C
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions. Hygroscopic.
Possibility of hazardous reactions	Stable under normal conditions.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid excessive heat. Exposure to moist air or water. Combustible material.
Incompatible material	Potassium hexacyanocobaltate, organic materials, reducing agents, ethylene glycol, lactose, metal powder, ethanol. Forms shock-sensitive mixtures with some other materials. Strong acid. Ammonium nitrate: fertilizer capable a self-sustaining decomposition Amines. Fluorine.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Hydrogen chloride gas. - Potassium oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

POTASSIUM PERCHLORATE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe irritation and burning may cause permanent eye damage.
- Skin	Severe burns and tissue ulcerations.
- Inhalation	Respiratory spasm, irritation and inflammation of the nose, throat and lungs, edema of the larynx, bronchi. Pneumonia and death.
Acute toxicity (Ingestion)	Corrosion and ulceration of the mouth, throat, esophagus, stomach and abdominal wall. Dysphagia, nausea, vomiting, intense thirst and diarrhea. Circulatory collapse and death.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, conjunctivitis, chest pain, abrasion of teeth, cough, nausea, vomiting, laryngitis, chronic bronchitis, dyspnea, loss of appetite and headache. Potassium perchlorate is used to treat hyperthyroidism. Its ingestion causes an inhibition of the use of iodine by the thyroid and consequently hypothyroidism. Blood disorders, Absorption into the body leads to the formation of methemoglobin which in concentration insufficient causes cyanosis. It can appear after 2 to 4 hours or more.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 50 mg/kg. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 - Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	EC50 - Daphnia magna (Water flea) - 670 mg/L - 24 h.
Persistence and degradability	Soluble in water. Persistence is unlikely based on the information provided.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	Do not throw residues in the sewer. Harmful to aquatic life.

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	1489
UN Proper shipping name	PERCHLORATE 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	Acute toxicity - Oral category 4 Oxidizing solids category 1
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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: 2/19/2020