



SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	LEAD(II) PERCHLORATE (TRIHYDRATE)
Other identification (Chemical name, Commercial name, Synonymous)	Lead(II) perchlorate trihydrate; Plomb, perchlorate de, trihydrate; sel de Plomb de l'acide perchlorique (trihydrate); Perchloric acid, lead salt trihydrate.
Product code	PR-0244
Chemical formula	$\text{Pb}(\text{ClO}_4)_2 \cdot 3\text{H}_2\text{O}$
Molar weight	460.15
Recommended use and Restrictions on use	For laboratory, school, commercial or industrial use. Not for medical or household use. Do not use for medical, food or household purposes.
Supplier	LABORATOIRE MAT 610, rue Adanac Québec Québec G1C 7B7 418-660-8666 Mon-Fri 8h-16h www.labmat.com labmat@labmat.com
Emergency phone	418-660-8666 Mon-Fri 8h-16h CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS	2025-11-05

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Acute toxicity - Oral - category 4
- Acute toxicity - Inhalation - category 4
- Reproductive toxicity - category 1A
- Specific Target Organ Toxicity - Repeated exposure - category 2
- Carcinogenicity - category 1B
- Oxidizing solids - category 2

PICTOGRAMS



Signal Word

DANGER

Hazards statements (H)

- Harmful if swallowed
- Harmful if inhaled
- May damage fertility or the unborn child
- May cause damage to organs through prolonged or repeated exposure
- May cause cancer
- May intensify fire; oxidizer

Precautionary statements (P)

- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- IF SWALLOWED: Call a POISON CENTER or a physician if you feel unwell.
- Rinse mouth.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- Avoid breathing mists, gases, vapors and other fumes, or the product itself.
- Use only outdoors or in a well-ventilated area.
- IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- Call a POISON CENTER or a doctor or if you feel unwell.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Wear protective gloves (nitrile, butyl, neoprene), protective clothing and eye and face protection.
- IF EXPOSED or if you feel unwell: Call a POISON CENTER or a physician.
- Store locked up.
- Do not breathe mists, gases, vapors and other fumes, or the product itself.
- Get medical attention if you feel unwell.
- Keep away from heat, sparks, open flames, hot surfaces. — No smoking.
- Keep away from clothing and combustible materials.
- In case of fire: Use dry powder or dry sand to extinguish.

Other dangers

NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Significant; 4=Extreme)

Health 3
Fire 1
Reactivity 1
Special danger OX

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
Lead perchlorate trihydrate	13453-62-8	<=100%

SECTION 04 - FIRST AID MEASURE

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 contaminated 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. 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: Skin, eye and respiratory system irritation. Abdominal pain. Nausea and vomiting. Diarrhea. Fatigue. Anemia. Damage to the reproductive system, sexual function and fertility. Ref. section 11.
Immediate medical attention and special treatment, if necessary	Treat according to symptoms. Show this sheet to the attending physician.

SECTION 05 - FIREFIGHTING MEASURES

Suitable extinguishing media	Use only a class D fire extinguisher to extinguish the fire.
Unsuitable extinguishing media	Data not available.
Combustion products	Hazardous combustion products formed under fire conditions: Gaseous Hydrogen Chloride. Lead oxide. Oxygen.
Specific hazards of the dangerous product	May react violently with incompatible products (Ref Section 10). Powerful oxidizer. Contact with combustible products may cause fire.
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

Personal precautions, protective equipment and emergency measures	Evacuate personnel to safe areas. When handling, wear appropriate safety equipment (reference Section 8 for protective equipment to be used). Ensure a good ventilation. Use NIOSH cartridge respiratory protection if necessary or for larger spills. Cut off all sources of ignition. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Avoid dust formation. Avoid breathing dust.
Methods and materials for containment and cleaning up	Pick up with a shovel or broom, taking care not to scatter dust. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Discharge into the environment must be avoided. Do NOT use combustible absorbents.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry, and well-ventilated place. Keep container tightly closed and store away from heat, water, moisture, and incompatible products (ref. section 10). Powerful oxidizer. Contact with combustible materials may cause fire.
Methods of handling	Avoid contact with eyes, skin and clothing. Avoid ingestion and inhalation. Avoid grinding or heat the product in the presence of combustible and organic materials. Wear personal protective equipment (ref. section 8) when handling. Always ensure good ventilation. Apply the usual standard hygiene rules: Wash your hands after use. Do not eat or drink during use.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

WORKPLACE CONTROL PARAMETERS

Components	CAS-No.	Control parameters	Value	Basis
Lead perchlorate trihydrate	13453-62-8			Canada. British Columbia OEL
		TWA	0.05 mg/m ³ (Lead)	Canada. Ontario OELs
		TWA	0.05 mg/m ³ (Lead)	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	0.05 mg/m ³ (Lead)	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

Data origin

Ontario Regulation 833. Alberta OELs. CNESST

Respiratory

If work under the hood is not possible, or if the permissible levels are exceeded, use NIOSH cartridge respiratory protection, or an air-supplied respirator.

Gloves

Handle with protective gloves. Suggested material: Nitrile. Butyl. Neoprene. The type, thickness and length of the glove must be chosen according to the use, the concentration of the product, as well as the duration of use. Replace gloves regularly for better protection.

Eyes

Safety goggles with safety shutters.

Shoes

Use safety shoes.

Clothes

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

Use fan. 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.
Color	White to beige.
Odour	Data not available.
Odour threshold	Data not available.
Melting point and freezing point	100 °C / 212 °F.
Boiling point	Data not available.
Flammability	Solid oxidizer.
Lower flammable / Explosive limit	Data not available.
Upper flammable / Explosive limit	Data not available.
Flash point	Data not available.
Auto-ignition temperature	Data not available.
Decomposition temperature	Data not available.
pH	3-5 @5%aq.sol.
Kinematic viscosity	Data not available.
Solubility	Soluble in water.
Partition coefficient water/n-octanol	Data not available.
Vapour pressure	Data not available.
Relative density	2.6
Vapour density	Data not available.
Particle characteristics	Crystal powder.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May react violently with incompatible substances. Oxidizer: risk of fire in case of contact with combustible or organic substance.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May react violently with incompatible substances. Risk of fire or explosion if heated or crushed in presence of combustible or organic products.
Conditions to avoid	Avoid moisture. Avoid excessive heat. Avoid contact with incompatible materials.
Incompatible materials	Organic materials. Combustible materials. Metal powder.
Hazardous decomposition products	Lead oxyde. Gaseous hydrogen chloride. Oxygen.

SECTION 11 - TOXICOLOGICAL INFORMATION

LEAD(II) PERCHLORATE (TRIHYDRATE)

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation.
- Skin	Irritation.
- Inhalation	Irritation of the mucous membranes and respiratory tract.
Acute toxicity (Ingestion)	Abdominal pain. Nausea and vomiting. Diarrhea. Convulsions. Fatigue.
Chronic exposure effects / symptoms	Muscle weakness. Weight loss. Abdominal pain. Anemia. weakness of the wrist muscles. Bluish gums. Joint inflammations. Nephropathy. May damage the unborn child. Suspected of damaging fertility. Is recognized as a possible carcinogen for humans (class 2B) by IARC.
DL50 (specify species and route of entry)	LD50 Oral - Data not available. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

LEAD(II) PERCHLORATE (TRIHYDRATE)

Ecotoxicity	Data not available.
Persistence and degradability	Not readily biodegradable.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Avoid release to the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

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

SECTION 14 - TRANSPORT INFORMATION

UN Number	1470
UN Proper shipping name	PERCHLORATE DE PLOMB, SOLIDE
Transport hazard class(es)	Matières comburantes 5.1 Matières toxiques 6.1
Packing group	II
Limited quantity index	1 kg
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA

- Acute toxicity - Oral - category 4
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SECTION 16 - OTHER INFORMATION

CNESST: Commission des normes, de l'équité et de la santé et sécurité au travail

NIH: National institute of health (U.S. National Library of Medicine)

ECHA: Agence Européenne de Chimie

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

VECD: Valeur d'exposition courte durée

VEMP: Valeur d'exposition moyenne pondérée

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TLV : Threshold limit value

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CELL: Ceiling

RSST: Règlement sur la santé et sécurité au travail (Québec)

INRS: l'Institut national de recherche et de sécurité pour la prévention des accidents du travail et des maladies professionnelles (France)

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.

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