



SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	PERIODIC ACID
Other identification (Chemical name, Commercial name, Synonymous)	ACIDE PARAPERIODIQUE; PARAPERIODIC ACID; PERIODIC ACID; ORTHOPERIODIC ACID.
Product code	PR-0112
Chemical formula	H_5IO_6
Molar weight	227.94
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	2025-10-20

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Oxidizing solids - category 2
- Skin corrosion/irritation - Skin corrosion - category 1B
- Serious eye damage/eye irritation - Eye irritation - category 1
- Specific Target Organ Toxicity - Single exposure - category 1
- Health hazard not otherwise classified - category 1

PICTOGRAMS



Signal Word

DANGER

Hazards statements (H)

- May intensify fire; oxidizer
- Causes severe skin burns and eye damage
- Causes serious eye damage
- Causes damage to thyroid
- Causes other adverse health effects that differ from other hazard categories after acute or repeated exposures: Corrosive to the respiratory tract.

Precautionary statements (P)

- Keep away from heat, sparks, open flames, hot surfaces. — No smoking.
- Keep away from clothing and combustible materials.
- Wear protective gloves (nitrile, butyle, neoprene), protective clothing and eye and face protection.
- In case of fire: Use water to extinguish.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- Do not breathe mists, gases, vapors and other fumes, or the product itself.
- Wash thoroughly after handling.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse with water.
- Wash contaminated clothing before reuse.
- IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- Immediately call a POISON CENTER or a physician.
- Specific treatment (see section 4 on the SDS on this label).
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Store locked up.
- Do not eat, drink or smoke when using this product.
- If exposed or concerned: Call a POISON CENTER or a physician.
- Caution is advised.

Other dangers

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

Health 3
Fire 1
Reactivity 2
Special danger OX

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
Periodic acid	10450-60-9	<=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. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	The product is a corrosive material. Main symptoms of high exposure: Chemical burns of the skin, eyes and respiratory and digestive mucous membranes. 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 water to extinguish the fire.
Unsuitable extinguishing media	Data not available.
Combustion products	Hazardous combustion products formed under fire conditions: Hydrogen iodide. Oxygen. Iodine pentoxide. Metaperiodic acid. Dimesoperiodic acid.
Specific hazards of the dangerous product	Powerful oxidizer. Contact with combustible products may cause fire. 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

Personal precautions, protective equipment and emergency measures	Evacuate personnel to safe areas. Cut off all sources of ignition. Use anti-spark tools and anti-explosion equipment. Avoid the accumulation of charges electrostatic. 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. Avoid breathing dust. Avoid dust formation.
Methods and materials for containment and cleaning up	Pick up with a shovel or broom, taking care not to scatter dust. Discharge into the environment must be avoided.

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, moisture, and incompatible products (ref. section 10). Keep away from sources of ignition - No smoking. Take measures to prevent the accumulation of electrostatic charges. Protect from the sun's rays. Hygroscopic
Methods of handling	This product is corrosive to metals. Do not bottle in a metal container. Avoid contact with eyes, skin and clothing. Avoid ingestion and inhalation. Keep away from sources of ignition - No smoking. 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. Avoid the formation of dust.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

WORKPLACE CONTROL PARAMETERS

Component	CAS-No.	Value
Periodic acid	10450-60-9	No occupational exposure limits established by region-specific regulators - Quebec, Alberta, Ontario, British Columbia.

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

Gloves resistant to acidic corrosive materials. Suggested material: Nitrile. Neoprene. Butyl. 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.
Odour	Odorless.
Odour threshold	Data not available.
Melting point and freezing point	122,00 °C.
Boiling point	Data not available.
Flammability	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	<1 (5%aq.solution).
Kinematic viscosity	Data not available.
Solubility	Soluble in water.
Partition coefficient water/n-octanol	Data not available.
Vapour pressure	7.6 - 12 Pa @ 20 - 25 °C.
Relative density	Data not available.
Vapour density	Data not available.
Particle characteristics	Solide cristallin.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Acid product, reacts strongly with strong bases. 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. Hygroscopic.
Possibility of hazardous reactions	May react violently with incompatible substances.
Conditions to avoid	Avoid moisture. Avoid contact with incompatible materials and extreme temperatures.
Incompatible materials	Reducing agents. Combustible materials. Organic materials. Strong bases.
Hazardous decomposition products	Oxygen. Hydrogen Iodide. Iodine pentoxide. Metaperiodic acid. Dimesoperiodic acid.

SECTION 11 - TOXICOLOGICAL INFORMATION

PERIODIC ACID

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe burns and destruction of ocular tissue that can lead to corneal ulceration and blindness.
- Skin	Severe burns and tissue ulcerations.
- Inhalation	Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Acute toxicity (Ingestion)	Burning of the mouth, throat, esophagus and abdominal wall.
Chronic exposure effects / symptoms	The product is extremely destructive to the tissues of the mucous membranes, upper respiratory tract, eyes, and skin.
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

PERIODIC ACID

Ecotoxicity	Data not available.
Persistence and degradability	Soluble in water. Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	Data not available.

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	3085
UN Proper shipping name	SOLIDE COMBURANT, CORROSIF, N.S.A. (acide periodique)
Transport hazard class(es)	Matières comburantes 5.1 Matières corrosives 8
Packing group	II
Limited quantity index	1 kg
ERAP Index	-
Special precautions	16

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA

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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

CEIL: 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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