



SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	POTASSIUM IODATE
Other identification (Chemical name, Commercial name, Synonymous)	POTASSIUM IODATE; IODIC ACID POTASSIUM SALT; IODIC ACID (HIO ₃); POTASSIUM SALT; POTASSIUM IODINE OXIDE,
Product code	PR-0196
Chemical formula	KIO ₃
Molar weight	214
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	2026-01-23

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Oxidizing solids - category 2
- Skin corrosion/irritation - Skin irritation - category 2
- Serious eye damage/eye irritation - Eye irritation - category 2A
- Specific target organ toxicity - Single exposure - category 3

PICTOGRAMS



Signal Word

DANGER

Hazards statements (H)

- May intensify fire; oxidizer
- Causes skin irritation
- Causes serious eye irritation
- May cause respiratory irritation

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 (not dry agents) to extinguish.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- IF ON SKIN: Wash with plenty of water
- If skin irritation occurs: Get medical attention.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists get medical attention.
- 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.
- Store in a well ventilated place. Keep container tightly closed.
- Store locked up.

Other dangers

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

Health 2
Fire 0
Reactivity 2
Special danger OX

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
Potassium iodate	7758-05-6	<=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	Consult a physician. If the person is conscious, give water to drink. Never give anything by mouth to an unconscious person. Do NOT induce vomiting.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Skin, eye and respiratory system irritation. Nausea and vomiting. Liver damage. Kidney damage. Convulsions. 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	Do not use dry chemical.
Combustion products	Hazardous combustion products formed under fire conditions: Hydrogen iodide. Potassium oxides.
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. 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	Powerful oxidizer. Contact with combustible materials may cause fire. Keep away from heat and sources of ignition. 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).
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

Component	CAS-No.	Value
Potassium iodate	7758-05-6	No occupational exposure limits established by region-specific regulators - Quebec, Alberta, Ontario, British Columbia.

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
Odour	Odorless
Odour threshold	Data not available
Melting point and freezing point	560°C (Dec)
Boiling point	Data not available
Flammability	No
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	560°C
pH	Aqueous solution 5% = pH 5.0 - 8.0
Kinematic viscosity	Not applicable
Solubility	Soluble in water (8%). Insoluble in alcohol.
Partition coefficient water/n-octanol	Data not available
Vapour pressure	Data not available
Relative density	3.98g/cm ³
Vapour density	Data not available
Particle characteristics	Crystals or crsitalline powder

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Oxidizer: risk of fire in case of contact with combustible or organic substance. May react violently with incompatible substances.
Chemical stability	Air sensitive. Decomposes on exposure to light. Darkens in air.
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. Chocs sensitive. Sensitive to friction.
Incompatible materials	Strong reducers. Metal powders. Strong oxidizers. Violent reaction with: Aluminium. Arsenic. Carbon. Copper. Hydrogen sulfide. Combustible materials. Organic materials. Metal sulfides. Metal oxides. Metallic hydrides. Sulfur. Sulfur compounds. Thiocyanates. Sulfuric acid. Phosphorus. The reaction can be amplified tenfold in the presence of: Heat and humidity. Shocks. Friction.
Hazardous decomposition products	Hydrogen Iodide. Potassium oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

POTASSIUM IODATE

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation. Tearing
- Skin	Irritation. Dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Nervous disorders. Cough. Dyspnoea. Headaches. Dizziness. Nausea and vomiting.
Acute toxicity (Ingestion)	Mucous membrane irritation. Gastrointestinal disorders. Cramps. Diarrhea. Headaches. Dizziness. Sweating, Salivation. Convulsions. Nausea and vomiting.
Chronic exposure effects / symptoms	Burning sensation. Dermatitis. Nervous system disorders. Chest pain. Cough. Dyspnoea. Headache. Dizziness. Confusion. Irritability. Tearing. Fatigue. Nausea and vomiting. Iodates, although soluble in water, do not release the I ⁻ ion but the IO ₃ ⁻ ion. Thus, no analogy with soluble iodine compounds regarding their effects can be made.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 531mg/kg. LD50 Dermal - Rat - >2000mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

POTASSIUM IODATE

Ecotoxicity	Data not available.
Persistence and degradability	Persistence is unlikely based on information provided.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	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	1479
UN Proper shipping name	SOLIDE COMBURANT, N.S.A. (Iodate de potassium)
Transport hazard class(es)	Matières comburantes 5.1
Packing group	II
Limited quantity index	1 kg
ERAP Index	-
Special precautions	16, 68

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA

- Oxidizing solids - category 2
- Skin corrosion/irritation - Skin irritation - category 2
- Serious eye damage/eye irritation - Eye irritation - category 2A
- Specific target organ toxicity - Single exposure - category 3

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.

LAST UPDATE: 2026-01-23