



SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	POTASSIUM FLUORIDE (50%W/V)
Other identification (Chemical name, Commercial name, Synonymous)	POTASSIUM FLUORIDE; FLUORURE DE POTASSIUM
Product code	PS-0605
Chemical formula	KF
Molar weight	58.1
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	2026-04-07

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Acute toxicity - Inhalation - category 4
- Acute toxicity - Oral - category 4

PICTOGRAMS



Signal Word

ATTENTION

Hazards statements (H)

- Harmful if inhaled
- Harmful if swallowed

Precautionary statements (P)

- 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.
- 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.

Other dangers

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

Health 2
Fire 0
Reactivity 0
Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
Potassium fluoride	7789-23-3	36%

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)

Main symptoms of high exposure: Skin, eye and respiratory system irritation. Nausea and vomiting. Abdominal pain. Thirst. Convulsions. Cardiac arrhythmia. Weak pulse. Tremors. Effects may be delayed. 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 spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Combustion products	Hazardous combustion products formed under fire conditions: Gaseous hydrogen fluoride. Potassium oxides.
Specific hazards of the dangerous product	When concentrated, the product reacts according to the following characteristics: 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.
Methods and materials for containment and cleaning up	Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Dispose of residues in a container for disposal of hazardous materials. 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, water, moisture, and incompatible products (ref. section 10).
Methods of handling	Bottle in plastic containers as this product corrodes the glass. Aqueous solutions can also corrode glass and porcelain and must be bottled in plastic containers. Avoid contact withh eyes, skin and clothing. Avoid ingestion and inhalation. 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	No.-CAS	Control parameters	Value	Basis
Potassium fluoride	7789-23-3	TWA	2.5mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	2.5 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	2.5 mg/m3	Canada. British Columbia OEL

Data origin Sigma-Aldrich (Millipore Sigma)

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	Liquid
Color	Colorless
Odour	Data not available
Odour threshold	Data not available
Melting point and freezing point	Data not available
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	Data not available
pH	Data not available
Kinematic viscosity	Data not available
Solubility	Very soluble in water (96.4% à 21°C). Insoluble in alcool. KF
Partition coefficient water/n-octanol	Data not available
Vapour pressure	Data not available
Relative density	1.372g/ml @20°C
Vapour density	Data not available
Particle characteristics	Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May react violently with incompatible substances.
Chemical stability	Hygroscopic.
Possibility of hazardous reactions	May react violently with incompatible substances.
Conditions to avoid	Avoid moisture. Avoid contact with incompatible materials and extreme temperatures. Avoid contact with incompatible materials.
Incompatible materials	When pure, the product reacts with the following products: Glass. Strong acids. Bromine trifluoride. Platinum.
Hazardous decomposition products	Gaseous hydrogen fluoride. Potassium oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

POTASSIUM FLUORIDE (50%W/V)

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Causes burns to the eyes. Can lead to corneal opacity. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
- Skin	Irritation. Dermatitis. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
- Inhalation	May irritate the respiratory system. Spasms. Irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis. Pulmonary edema. Can lead to death. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
Acute toxicity (Ingestion)	Irritation of the esophagus and digestive tract. Mouth irritation. Mucous membrane irritation. Burning of the mouth, throat, esophagus and abdominal wall. Dysphagia. Abdominal pain. Cramps. Diarrhea. Melena. Sweating, Salivation. Muscular weakness. Tremors. Convulsions. Hypotension. Weak pulse. Irregular pulse. Coma. Possible death. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
Chronic exposure effects / symptoms	Burning sensation. Dermatitis. Conjunctivitis. Lung damage. Nervous disorders. Chest pain. Cough. Dyspnoea. Laryngitis. Headache. Dizziness. Confusion. Irritability. Sweating. Salivation. Fever. Hypocalcemia. Loss of appetite. Weight loss. Nausea and vomiting. Fluorosis (characterized by bone fragility, joint stiffness, bone decalcification). To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
DL50 (specify species and route of entry)	ETA Mix (Estimated Acute Toxicity): LD50 Oral - Rat - 672 mg/kg. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Data not available.

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DL50 (specify species and route of entry)	LD50 Oral - Rat - 245 mg/kg. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

POTASSIUM FLUORIDE (50%W/V)

Ecotoxicity	Data not available.
Persistence and degradability	Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other adverse effects	Data not available.

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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	N/R
UN Proper shipping name	
Transport hazard class(es)	
Packing group	
Limited quantity index	
ERAP Index	
Special precautions	

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	- Acute toxicity - Inhalation - category 4 - 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

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: 2026-04-07