SAFETY DATA SHEET

# SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

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| **Product Identifier**<br>POTASSIUM FLUORIDE (33%W/V) | | **Product Use**<br>Laboratory use | |
| **Chemical formula**<br>KF | | **Product code**<br>PS-0633 | **Molar weight**<br>58,1 |
| **Chemical name / Commercial name / Synonymous**<br>POTASSIUM FLUORIDE | | | |
| **Supplier's name**<br>Laboratoire MAT | | **Address-Street**<br>610, Adanac Street | |
| **City**<br>Québec | | **Province**<br>Québec | |
| **Postal code**<br>G1C 7B7 | **Internet**<br>www.labmat.com | **Phone number**<br>418-660-8666 Lun-Ven 8h-16h | |
| **Emergency phone**<br>418-660-8666 Lun-Ven 8h-16h | | CENTRE ANTI-POISON DU QUÉBEC 800-463-5060 | |
| **Date SDS**<br>10/23/2024 | **SDS Prepared by**<br>Laboratoire MAT | **E-Mail**<br>labmat@labmat.com | |

# SECTION 02 - HAZARDS IDENTIFICATION

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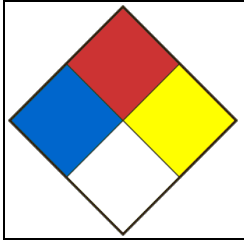
| **Classification WHIMS / GHS** | Acute toxicity - Oral category 4<br>Acute toxicity - Inhalation category 4 |
| **Signal Word** | WARNING |
| **Hazards statements (H)** | H302 Harmful if swallowed.<br>H332 Harmful if inhaled. |
| **Precautionary statements (P)** | P261 Avoid breathing mists, gases, vapors and other fumes, or the product itself.<br>P264 Wash thoroughly after handling.<br>P270 Do no eat, drink or smoke when using this product.<br>P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.<br>P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.<br>P312 Call a POISON CENTER or doctor/physician if you feel unwell.<br>P330 Rinse mouth.<br>P501 Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company. |
| **PICTOGRAMS** |  |
| **Other dangers** | NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme) |
|  | **Health** 2<br>**Fire** 0<br>**Reactivity** 0<br>**Special danger** |

## SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

| Ingrédients (Dénomination chimique / synonymes) | Numéro CAS et tout identificateur unique | Concentration (%P/P) |
|---|---|---|
| Fluorure de potassium | 7789-23-3 | 25 |

## SECTION 04 - FIRST AID MEASURES

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| **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** | Treat the exposed skin with a 2.5% calcium gluconate gel, repeated application, until the burning sensation ceases. Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. Consult a physician. |
| **Inhalation** | Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician. |
| **Ingestion** | Get immediate medical help. While awaiting the arrival of the aid, the patient may be ingested with a solution of 10% calcium gluconate or 5% calcium chloride. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. |
| **Most important symptoms and effects (acute and delayed)** | Main symptoms of high exposure: Thirst. Nausea and vomiting. Abdominal pain. Skin, eye and respiratory system irritation. Tremors. Convulsions. Weak pulse. Cardiac arrythmia. 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

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| **Flammability** | No |
| **Suitable extinguishing media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Unsuitable extinguishing media** | Data not available. |
| **Hazardous combustion products** | Hazardous combustion products formed under fire conditions: - Gaseous hydrogen fluoride. - Potassium oxides. |
| **Specific hazards of the dangerous product** | 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

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| **Methods and materials for containment and cleaning up / Personnal precautions, protective equipment** | Evacuate personnel to safe areas. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. When handling, wear appropriate safety equipment. Use NIOSH cartridge respiratory protection for larger spills. (Reference Section 8 for protective equipment to be used.) Prevent further leakage or spillage if it is safe to do so. Discharge into the environment must be avoided. |

## SECTION 07 - HANDLING AND STORAGE

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| **Conditions for safe storage** | Store in a cool, dry place. Keep container tightly closed and store away from heat, moisture, and incompatible products. Keep container tightly closed in a dry and well-ventilated place. |
| **Methods of handling** | Bottle in plastic containers as this product corrodes the glass. Aqueous solutions can also corrode glass and porcelain and must be stored in plastic containers. Do not use metal instruments to handle this product. Always open containers slowly to allow any excess pressure to vent. Avoid formation of dust and aerosols. Avoid ingestion and inhalation. Apply the usual standard hygiene rules: Wash your hands after use. Do not eat or drink during use. Wear personal protective equipment when handling. Always ensure good ventilation. |

## SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

**Workplace control parameters**

| Composants | No.-CAS | Valeur | Paramètres de contrôle | Base |
|---|---|---|---|---|
| Potassium fluoride | 7789-23-3 | TWA | 2.500000 mg/m3 | Canada. Alberta, Code de santé et de sécurité au travail (tableau 2 : VLE) |
| Remarques | | | | |
| | TWA<br><br>2.500000 mg/m3<br>Canada. Alberta, Code de santé et de sécurité au travail (tableau 2 : VLE) | | | |
| | | | | |
| | | VEMP | 2.500000 mg/m3 | Québec. Règlement sur la santé et la sécurité du travail, Annexe 1 Partie 1: Valeurs d'exposition admissibles des contaminants de l'air |
| | | | | |
| | | VEMP | 2.500000 mg/m3 | Québec. Règlement sur la santé et la sécurité du travail, Annexe 1 Partie 1: Valeurs d'exposition admissibles des contaminants de l'air |
| | | | | |
| | | TWA | 2.500000 mg/m3 | Canada. LEP Colombie Britannique |
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| | | TWA | 2.500000 mg/m3 | Canada. LEP Colombie Britannique |
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| | | | | |
| | | TWA | 2.5 mg/m3 | Canada. Alberta, Code de santé et de sécurité au travail (tableau 2 : VLE) |
| | | | | |
| | | VEMP | 2.5 mg/m3 | Québec. Règlement sur la santé et la sécurité du travail, Annexe 1 Partie 1: Valeurs d'exposition admissibles des contaminants de l'air |
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| | | TWA | 2.5 mg/m3 | Canada. LEP Colombie Britannique |
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| Bone damage | Fluorosis | Substances for which there is a Biological Exposure Index or Indices | (see BEI® section) | Not classifiable as a human carcinogen | varies | |

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| **Data source** | Sigma-Aldrich (Millipore Sigma) |
| **Ventilation** | Fan. |
| **Respiratory** | If permitted levels are exceeded, use NIOSH cartridge respiratory protection, or an air-supplied respirator. |
| **Gloves** | The use of gloves is not required. Suggested material: Viton® (Fluoroelastomer).<br>Butyle. Neoprene. Nitrile. The type, thickness and length of the glove must be chosen according to the |

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| | 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. |
| **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

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| **Physical state** | Liquid. |
| **Appearance** | Liquide incolore. |
| **Odour** | Donnée non disponible. |
| **Odour threshold** | Data not available |
| **pH** | 7-9. |
| **Melting point / Freezing point** | Data not available |
| **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 |
| **Solubility** | Très soluble dans l'eau (96.4% à 21°C). Insoluble dans l'alcool. |
| **Vapour density** | Data not available |
| **Relative density** | 1.39g/ml |
| **Partition coefficient water/n-octanol** | Data not available |
| **Auto-ignition temperature** | Data not available |
| **Decomposition temperature** | Data not available |
| **Viscosity** | Data not available |

## SECTION 10 - STABILITY AND REACTIVITY

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| **Reactivity** | May react violently with incompatible substances. |
| **Chemical stability** | Hygroscopic. |
| **Possibility of hazardous reactions** | Reacts violently with the glass. |
| **Conditions to avoid, including static discharge, shock or vibration** | Reacts violently with glass |
| **Incompatible materials** | When pure, the product reacts with the following products: Strong acids, bromine trifluoride, platinum and moisture. Glass. |
| **Hazardous decomposition products** | Hazardous decomposition products formed under fire conditions. - Hydrogen fluoride, Potassium oxides |

### POTASSIUM FLUORIDE

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| **Routes of exposure** | Inhalation, skin and eyes. |
| **Acute exposition effects / symptoms:** | By exposure route below. |
| **- Eyes** | Severe irritation and burns that may cause permanent eye damage. |
| **- Skin** | Severe irritation and dermatitis. |
| **- Inhalation** | Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis and pulmonary edema that can lead to death. |
| **Acute toxicity (Ingestion)** | Irritation and burning of the mouth, throat, esophagus and abdominal wall. Dysphagia, abdominal pain, cramps, diarrhea, melena, sweating, salivation, muscle weakness, pallor, tremors, convulsions, weak and irregular pulse, hypotension, unconsciousness, coma and can lead |
| **Chronic exposure effects / symptoms** | Burning sensation, dermatitis, conjunctivitis, lung damage, nerve disorders, chest pain, cough, dyspnea, laryngitis, headache, dizziness, confusion, irritability, sweating, salivation, fever, hypocalcemia, weight loss and loss of appetite, nausea and vomiting. NOTE: Chronic exposure can also lead to the development of fluorosis, which is characterized by increased bone fragility, joint stiffness, bone decalcification, and calcification of ligaments. |
| **DL50 (specify species and route of entry)** | LD50 Oral -Rat ->245 mg/kg . DL50 Dermale - Rat - > 5,000 mg/kg |
| **CL50 (specify species and route of entry)** | LC50 Inhalation - Rat - 4h - 1 mg/l |

### SUMMARY

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| Acute exposure effects / Symptoms: | By exposure routes below. |
| Ingestion | To our knowledge, the product has not been fully evaluated |
| Inhalation | To our knowledge, the product has not been fully evaluated |
| Skin | To our knowledge, the product has not been fully evaluated |
| Eyes | To our knowledge, the product has not been fully evaluated |
| Chronic exposure effects / Symptoms: | To our knowledge, the product has not been fully evaluated |
| ETA Mix (Estimated Acute Toxicity) | LD50 Oral: 981mg/kg - Rat<br>LD50 Dermal: > 5000 mg/kg - Rat<br>LC50 Inhalation:4mg/L - 4h - Rat |

## SECTION 12 - ECOLOGICAL INFORMATION

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| **Available ecological information** | No |

## SECTION 13 - DISPOSAL CONSIDERATIONS

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| **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

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| **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

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| **WHIMS CANADA** | Acute toxicity - Oral category 4<br>Acute toxicity - Inhalation category 4 |

## 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: 10/23/2024**