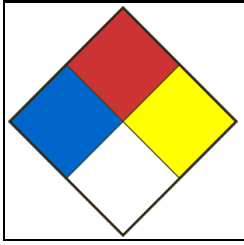
Centre Anti-Poison pour le Québec: (800) 463-5060
Tél. (Qc): (418) 660-8666 / 800-890-8666
Fax. (Qc): (418) 660-8998

SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier POTASSIUM NITRATE		**Product Use** Laboratory use	
Chemical formula KNO_3		**Product code** PR-0168; PT-0168	**Molar weight** 101,11
Chemical name / Commercial name / Synonymous POTASSIUM NITRATE, SALPÊTRE, NITRE, NITRIC ACID POTASSIUM SALT, VICKNITE			
Supplier's name Laboratoire MAT		**Address-Street** 610, Adanac Street	
City Québec		**Province** Québec	
Postal code G1C 7B7	**Internet** www.labmat.com	**Phone number** 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666	CENTRE ANTI-POISON DU QUÉBEC 800-463-5060	
Date SDS 8/20/2019	**SDS Prepared by** Laboratoire MAT	**E-Mail** labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Oxidizing solids category 3
Signal Word	WARNING
Hazards statements (H)	H272 May intensify fire; oxidiser.
Precautionary statements (P)	P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P220 Keep/Store away from clothing and combustible materials. P280 Wear protective gloves/protective clothing/eye protection/face protection. P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction. P501 Dispose of contents/container in accordance with local / regional / national / international 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** 1 **Fire** 0 **Reactivity** 1 **Special danger** OX

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Nitrate de potassium	7757-79-1	<=100

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. See a doctor.
Skin contact	Remove soiled clothing. Wash skin with plenty of water for at least 15 minutes. Consult a physician.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	If the person is conscious, drink water and do not induce vomiting Never give anything by mouth to an unconscious person. Get immediate medical help.
Most important symptoms and effects (acute and delayed)	Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Ignition conditions	Risk of fire or explosion if heated or crushed in presence of combustible products. Not flammable or combustible.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. Nitrogen oxide. - Potassium oxides.
Special fire and explosion hazards	Powerful oxidizer Contact with combustible products may cause fire. Potential for explosion if potassium nitrate is heated or crushed by contact with: aluminum + barium nitrate + potassium perchlorate + water (storage), boron + laminac + trichlorethylene, coal wood + sulfur, sodium peroxide + dextrose, strong reducing agents (potassium, sodium, metal hydrides), antimony trisulfide, arsenic and arsenic disulfide, boron, silicide Calcium, carbon, chromium nitride, fluorine, lactose, phosphorus, phosphides, metal powders (aluminum, antimony, iron, germanium, magnesium, titanium, zinc, zirconium), metal sulphides (barium sulphide, calcium sulphide), molybdenum disulfide, sodium acetate, sodium hypophosphite, sodium phosphinate, sodium thiosulfate, titanium disulfide and trichlorethylene. 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

Methods and materials for containment and cleaning up / Personnal precautions, protective equipment	Evacuate personnel to safe areas. Pick up with a shovel or broom, taking care not to scatter dust. Clean and rinse with water. Ensure a good ventilation of the premises. Avoid dust formation. Avoid breathing vapours, mist or gas. When handling, wear appropriate safety equipment. Use a respirator as needed. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry place. Keep container tightly closed and store away from heat, moisture, combustible and organic products. Keep container tightly closed in a dry and well-ventilated place. Hygroscopic.
Methods of handling	Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition. Avoid grinding or heat the product in the presence of combustible and organic materials.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control Citric acid	
POTASSIUM NITRATE	7757-79-1	No data available	TLV, TWA, STEL	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		No data available	TLV, TWA, STEL	Canada. British Columbia OEL
		No data available	TLV, TWA, STEL	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

Ventilation	Use fan.
Respiratory	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat.
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

Physical state	Solid.
Appearance	Poudre cristalline de couleur blanche.
Odour	Inodore.
Odour threshold	Data not available
pH	pH = ~7.
Melting point / Freezing point	334°C
Initial boiling point	400°C
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
Vapour density	Data not available
Relative density	2.109g/cm³
Solubility	Soluble dans l'eau (100g/L @25°C). Peu soluble dans l'alcool.
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

Reactivity	Oxidizer: risk of fire in case of contact with combustible / organic substance.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Oxidizer.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid moisture and excessive heat.
Incompatible material	Strong reducing agents, strong acids, antimony trisulfide, arsenic, calcium silicide, carbon, chromium nitride, lactose, fine metal powders (aluminum, antimony, iron, germanium, magnesium titanium, zinc, zirconium), metal sulfides, phosphides, sodium acetate, sodium hypophosphite, sodium thiosulfate, trichlorethylene, heat and moisture.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Toxic vapors of nitrogen oxides. - Potassium oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

POTASSIUM NITRATE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and tearing.
- Skin	May be harmful if absorbed through skin. Irritation and dermatitis.
- Inhalation	May be harmful if inhaled. Irritation of the mucous membranes and respiratory tract. Nervous disorders, chest pain, cough, dyspnea, headache, dizziness, watery eyes, fever, nausea and vomiting.
Acute toxicity (Ingestion)	May be harmful if swallowed. May cause irritation. Gastrointestinal disorders, cramps, diarrhea, headache, dizziness, convulsions, nausea and vomiting.
Chronic exposure effects / symptoms	Is recognized as probably carcinogenic agent for humans (class 2A IARC) - Group 2A. May cause cyanosis. Burning sensation, dermatitis, nervous disorders, kidney damage, chest pain, cough, dyspnea, laryngitis, headache, dizziness, watery eyes, confusion, irritability, fatigue, anemia, methaemoglobinaemia, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 2000 mg/kg. LD50 Dermal - Rat - 5000 mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4h - 527 mg/m³ .

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Toxicity to fish: LC50 - Gambusia affinis (wild guppy) - 22.5 mg / l - 96 h Static test LC50 - Poecilia reticulata (Guppie) - 1,378 mg / l - 96 h Toxicity for daphnia and the others invertebrates aquatic. EC50 - Daphnia magna: 226 mg/l - 72 h
Persistence and degradability	Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

SECTION 13 - DISPOSAL CONSIDERATIONS

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

SECTION 14 - TRANSPORT INFORMATION

UN Number	1486
UN Proper shipping name	NITRATE DE POTASSIUM
Transport hazard class(es)	5.1 Oxidizing substances
Packing group	III
Limited quantity index	5kg
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Oxidizing solids category 3

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: 8/20/2019