SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	POTASSIUM DICHROMATE (0.2N)
Other identification (Chemical name, Commercial name, Synonymous)	POTASSIUM DICHROMATE; POTASSIUM BICHROMATE; POTASSIUM DICHROMATE (VI); CHROMIC ACID DIPOTASSIUM SALT; RED POTASSIUM CHROMATE; DIPOTASSIUM DICHROMATE
Product code	PS-0602
Chemical formula	$K_2Cr_2O_7$
Molar weight	294.2
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	2026-01-16

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Skin corrosion/irritation - Skin corrosion - category 1
- Serious eye damage/eye irritation - Eye irritation - category 2
- Carcinogenicity - category 1B
- Germ cell mutagenicity - category 1B
- Respiratory or skin sensitization - Skin sensitize - category 1
- Respiratory or skin sensitization - Respiratory sensitizer - category 1
- Reproductive toxicity - category 1B
- Specific Target Organ Toxicity - Repeated exposure - category 1

PICTOGRAMS



Signal Word

DANGER

Hazards statements (H)

- Causes severe skin burns and eye damage
- Causes serious eye irritation
- May cause cancer
- May cause genetic defects
- May cause an allergic skin reaction
- May cause allergy or asthma symptoms or breathing difficulties if inhaled
- May damage fertility or the unborn child
- Causes damage to organs through prolonged or repeated exposure

Precautionary statements (P)

- Do not breathe mists, gases, vapors and other fumes, or the product itself.
- Wear protective gloves (nitrile, butyle, neoprene), protective clothing and eye and face protection.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse with water.
- IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- Immediately call a POISON CENTER or a physician.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Store locked up.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- If eye irritation persists get medical attention.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- IF exposed or if you feel unwell: Call a POISON CENTER or a physician.
- Contaminated work clothing should not be allowed out of the workplace.
- IF ON SKIN: Wash with plenty of water
- If skin irritation or a rash occurs: Get medical attention.
- Wear respiratory protection.
- Do not eat, drink or smoke when using this product.
- Get medical attention if you feel unwell.

Other dangers

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

Health	2
Fire	0
Reactivity	1
Special danger	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
Potassium dichromate	7778-50-9	1%

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. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	When concentrated, high exposure to the product causes the following main symptoms: Nausea and vomiting. Diarrhea. Cough. Breathing difficulties. Vision blurs. Redness. Allergic reaction. 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: Chromium oxides.
Specific hazards of the dangerous product	May react violently with incompatible products (Ref Section 10). In the event of a fire, the water in the solution will evaporate, and the oxidizing base product will fuel the fire.
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.
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. Do NOT use combustible absorbents.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Powerful oxidizer. Contact with combustible materials may cause fire. 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). Keep away from heat and sources of ignition. Protect from light and sunlight.
Methods of handling	Avoid contact withh eyes, skin and clothing. Avoid ingestion and inhalation. Avoid grinding or heat the product in the presence of combustible and organic materials. Bottle in the glass preferably. Do not bottle in a metal container. 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

Components	CAS-No.	Control parameters	Value	Basis
Potassium dichromate	7778-50-9	TWA	0.05mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Confirmed Human Carcinogen (means that the agent is carcinogenic to humans)			
		TWAEV	0.050000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	A substance which may not be recirculated in accordance with section 108 A substance to which exposure must be reduced to a minimum in accordance with section 42 Sensitizer Carcinogenic effect detected in humans			
		TWA	0.025000 mg/m3	Canada. British Columbia OEL
	IARC '1' applies to substances categorized as carcinogenic to humans, and used when there is sufficient evidence of carcinogenicity in humans. ACGIH 'A1' applies to those substances confirmed as human carcinogens based on the weight of evidence from epidemiological studies			
		C	0.100000 mg/m3	Canada. British Columbia OEL
	IARC '1' applies to substances categorized as carcinogenic to humans, and used when there is sufficient evidence of carcinogenicity in humans. ACGIH 'A1' applies to those substances confirmed as human carcinogens based on the weight of evidence from epidemiological studies			
		C	0.1 mg/m3	Canada. British Columbia OEL
		TWA	0.050000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.05 mg/m3	USA. ACGIH Threshold Limit Values (TLV)

Data origin	Sigma-Aldrich (Millipore Sigma) Fisher Scientific
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. Recirculation is prohibited.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Color	Orange
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	~4
Kinematic viscosity	Data not available
Solubility	Soluble in water
Partition coefficient water/n-octanol	Data not available
Vapour pressure	Data not available
Relative density	Data not available
Vapour density	Data not available
Particle characteristics	Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	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.
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 contact with incompatible materials. Avoid the build-up of static electricity. Heat, flames and sparks.
Incompatible materials	When pure, the product reacts with the following products: Organic materials. Combustible materials. Reducing agents. Metal powders. Iron. Glycols. Can form an explosive mixture with: Hydrazine. Hydroxylamine.
Hazardous decomposition products	Chromium oxides. Potassium oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

POTASSIUM DICHROMATE (0.2N)

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
- Skin	Irritation. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
- Inhalation	To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
Acute toxicity (Ingestion)	To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
Chronic exposure effects / symptoms	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 - >5000mg/kg. LD50 Dermal - Rabbit - >5000mg/kg.
CL50 (specify species and route of entry)	ETA Mix (Estimated Acute Toxicity) LC50 Inhalation - Rat - 4 h - 9.3 mg/L.

POTASSIUM DICHROMATE

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Causes serious eye damage.
- Skin	Irritation. Severe burns and tissue ulcerations.
- Inhalation	Spasms. Irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis. Pulmonary edema. Can lead to death.
Acute toxicity (Ingestion)	Irritation of the esophagus and digestive tract. Dysphagia. Abdominal pain. Cramps. Diarrhea. Melena. Liver and kidney damage. Intense thirst. Nausea and vomiting. Circulatory collapse. Hemorrhagic enteritis. Convulsions. Coma. Loss of consciousness. Possible death.
Chronic exposure effects / symptoms	Burning sensation. Dermatitis. Conjunctivitis. Respiratory allergy. Skin allergy. Chest pain. Cough. Dyspnoea. Laryngitis. Pharyngitis. Headache. Dizziness. Digestive problems. Fatigue. Weight loss. Loss of appetite. Nausea and vomiting. Ulceration and perforation of the nasal septum. Teeth discoloration. Kidney damage. Lung damage. Is recognized as a carcinogen (class 1) by IARC.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 67-168 mg/kg. LD50 Dermal - Rabbit - 2000mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4 h - 0.09mg/L.

SECTION 12 - ECOLOGICAL INFORMATION

POTASSIUM DICHROMATE (0.2N)

Ecotoxicity	Data not available.
Persistence and degradability	Not applicable for inorganic substances.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Avoid release to the environment.

POTASSIUM DICHROMATE

Ecotoxicity	Toxicity to fish: LC50 - Lepomis macrochirus - 0.131mg/L -96.0h. Mortality NOEC - Pimephales promelas (fathead minnow) - 6 mg/l - 7.0 d. Toxicity to daphnia and other aquatic invertebrates: Mortality NOEC - Daphnia (water flea) - 0.035 mg/l - 48 h. Toxicity to algae: EC50 - Pseudokirchneriella subcapitata - 0.31 mg/l - 72 h.
Persistence and degradability	Not applicable for inorganic substances.
Bioaccumulative potential	Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 180 d. Bioconcentration factor (BCF): 17.4.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. 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	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

- Skin corrosion/irritation - Skin corrosion - category 1
- Serious eye damage/eye irritation - Eye irritation - category 2
- Carcinogenicity - category 1B
- Germ cell mutagenicity - category 1B
- Respiratory or skin sensitization - Skin sensitize - category 1
- Respiratory or skin sensitization - Respiratory sensitizer - category 1
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- Specific Target Organ Toxicity - Repeated exposure - category 1

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. Naltional Library of Medecine)
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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