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

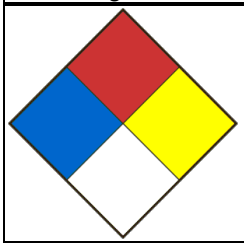
SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier POTASSIUM DICHROMATE (5%W/V)		**Product Use** Laboratory use	
Chemical formula $K_2Cr_2O_7$		**Product code** PS-0859	**Molar weight** 294,2
Chemical name / Commercial name / Synonymous POTASSIUM DICHROMATE, POTASSIUM BICHROMATE, POTASSIUM DICHROMATE (VI), CHROMIC ACID DIPOTASSIUM SALT, RED POTASSIUM CHROMATE, DIPOTASSIUM DICHROMATE			
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 6/17/2022	**SDS Prepared by** Laboratoire MAT	**E-Mail** labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Serious eye damage/eye irritation - Serious eye damage category 1 Respiratory or skin sensitization - Respiratory sensitizer category 1 Germ cell mutagenicity category 1A Carcinogenicity category 1B Reproductive toxicity category 1B Specific Target Organ Toxicity - Repeated exposure category 1 Acute toxicity - Oral category 4 Respiratory or skin sensitization - Skin sensitize category 1 Specific target organ toxicity - Single exposure category 3 Skin corrosion/irritation - Skin corrosion category 1 Acute toxicity - Inhalation category 4
Signal Word	DANGER
Hazards statements (H)	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H340 May cause genetic defects. H350 May cause cancer. H360 May damage fertility or the unborn child. H372 Causes damage to organs through prolonged or repeated exposure. H332 Harmful if inhaled.
Precautionary statements (P)	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust / fume / gas / mist / vapors / spray. P261 Avoid breathing dust / fume / gas / mist / vapors / spray. P264 Wash the areas of the body that have been in contact with the product after handling. P270 Do no eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P284 Wear respiratory protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/attention. P310 Immediately call a POISON CENTER or doctor/physician. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P314 Get medical advice/attention if you feel unwell. P321 Specific treatment (see section 4 of the SDS and on this label). P330 Rinse mouth. P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. P362 + P364 Take off contaminated clothing and wash it before reuse.

	P363	Wash contaminated clothing before reuse.
	P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
	P405	Store locked up.
	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** 3 **Fire** 0 **Reactivity** 1 **Special danger** OX	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Dichromate de potassium	7778-50-9	5

SECTION 04 - FIRST AID MEASURES

Eye contact	If irritation persists, seek medical attention.
Skin contact	If irritation persists, seek medical attention.
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. 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: Nausea and vomiting. Diarrhea. Cough. Breathing difficulties. Blurry vision. Skin irritation. Redness. 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.
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: Toxic vapors of potassium chromate. - Potassium oxides, Chromium oxides.
Special fire and explosion hazards	The product in solution is not considered to be an oxidizer, but during a fire the water would evaporate, and the dry product would regain its oxidizing properties and could feed the flames. Can ignite organic and combustible materials. Potassium dichromate may react violently or explode on contact with: acetone + sulfuric acid, boron + silicon, ethylene glycol (above 100 ° C), iron (ignition at 1090 ° C), hydrazine, hydroxylamine, tungsten (ignition at 1700 ° C). 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. Absorb the product with sand or vermiculite. Do not use cellulose-based absorbent. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. When handling, wear appropriate safety equipment. Use a respirator as needed. Dispose of residues in a container provided for the 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 place. Keep container tightly closed and store away from heat, moisture, combustible and organic products. Avoid storing on a wooden floor. Keep container tightly closed in a dry and well-ventilated place. Protect from sunlight and light.
Methods of handling	Bottle in the glass preferably. Always open containers slowly to allow any excess pressure to vent. 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.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Potassium dichromate	7778-50-9			Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	0.050000 mg/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			
				Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	0.05 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
	Confirmed Human Carcinogen (means that the agent is carcinogenic to humans)			
		TWAEV	0.05 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	0.025 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
	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			
		TWA	0.050000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.05 mg/m3	USA. ACGIH Threshold Limit Values (TLV)

Data source	Sigma-Aldrich (Millipore Sigma)
Ventilation	Use fan.
Respiratory	If work under the hood is not possible, or 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. Complete suit protecting against chemicals, 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

Physical state	Liquid.
Appearance	Liquide orange.
Odour	Donnée non disponible.
Odour threshold	Data not available
pH	Solution aqueuse 1% = pH 4.04 Solution aqueuse 10% = pH 3.57.
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	Soluble dans l'eau. Insoluble dans l'alcool.
Vapour density	Data not available
Relative density	1.05g/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

Reactivity	Oxidizer: risk of fire in case of contact with combustible / organic substance.
Chemical stability	Sensitive to light. Sensitive to heat.
Possibility of hazardous reactions	Oxidizer. Keep away from open flames, hot surfaces and sources of ignition.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid the accumulation of static electricity. Heat, flames, sparks. Light sensitive.
Incompatible material	Acids. Powdered metals. Strong reducing agents (potassium, sodium, metal hydrides), acids, ethylene glycol, iron, hydrazine, hydroxylamine, organic and combustible materials, easily oxidizable substances, tungsten, heat and humidity.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - Potassium oxides, Chromium oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

POTASSIUM DICHROMATE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe irritation and burns that may cause permanent eye damage.
- Skin	Irritation and dermatitis. Exposed areas of the skin, including the fingers, the back of the hand and the forearms may present small ulcerations ("chrome sori").
- 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)	Severe irritation of the digestive tract. Dysphagia, abdominal pain, haemorrhagic enteritis, cramps, diarrhea, melena, intense thirst, nausea and vomiting, tubular nephritis and possible hepatotoxicity, convulsions, circulatory collapse, unconsciousness, coma and can lead to death.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, conjunctivitis, respiratory allergies, cutaneous reactions (chromium sori), kidney and lung damage, chest pain, cough, dyspnea, laryngitis, pharyngitis, headache, dizziness, ulceration and perforation of the septum nasal, discoloration of the teeth, metallic taste in the mouth, fatigue, digestive disorders (inflammation and ulceration of the gastrointestinal tract), weight loss and loss of appetite, seizures, nausea and vomiting. Prolonged exposure to this product is likely to cause cancer.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 67-168 mg/kg. LD50 Dermal - Rabbit - 2000 mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4h - 0.09 mg/L.

SUMMARY

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: 1407 mg/kg - Rat LD50 Dermal: > 5000 mg/kg - Rabbit LC50 Inhalation: 1.9mg/L - 4h - Rat

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Potassium dichromate: Toxicity to fish: LC50 - Lepomis macrochirus - 0.131 mg/l - 96.0 h. Mortality NOEC - Pimephales promelas (fathead minnow) - 6 mg/l - 7.0 d Toxicity to daphnia and other aquatic invertebrates: Mortality NOEC - Daphnia magna (Water flea) - 0.035 mg/l - 48 h. Toxicity to algae: EC50 - Pseudokirchneriella subcapitata - - 0.31 mg/l - 72 h
Persistence and degradability	Data not available.
Bioaccumulative potential	Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 180 d. Bioconcentration factor (BCF): 17. 4.
Mobility in soil	Probable mobility due to its solubility in water.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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	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	Serious eye damage/eye irritation - Serious eye damage category 1 Respiratory or skin sensitization - Respiratory sensitizer category 1 Germ cell mutagenicity category 1A Carcinogenicity category 1B Reproductive toxicity category 1B Specific Target Organ Toxicity - Repeated exposure category 1 Acute toxicity - Oral category 4 Respiratory or skin sensitization - Skin sensitize category 1 Specific target organ toxicity - Single exposure category 3 Skin corrosion/irritation - Skin corrosion category 1 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.

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