



Centre Anti-Poison pour le Québec: (800) 463-5060

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## SAFETY DATA SHEET

### SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

|  |                                    |   |   |
|--|------------------------------------|---|---|
| Product Identifier<br>POTASSIUM DICHROMATE 1.0N  |                                    | Product Use<br>Laboratory use               |   |
| Chemical formula<br>K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>  |                                    | Product code<br>PS-0610                     | Molar weight<br>294,2                     |
| Chemical name / Commercial name / Synonymous<br>POTASSIUM DICHROMATE, POTASSIUM BICHROMATE, POTASSIUM DICHROMATE (VI), CHROMIC ACID DIPOTASSIUM SALT, RED POTASSIUM CHROMATE, DIPOTASSIUM DICHROMATE |                                    |   |   |
| 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 / 800-890-8666 |   |
| Emergency phone  | CANUTEC: 613-996-6666              |   | CENTRE ANTI-POISON DU QUÉBEC 800-463-5060 |
| Date SDS<br>6/17/2022  | SDS Prepared by<br>Laboratoire MAT | E-Mail<br>labmat@labmat.com                 |   |

## SECTION 02 - HAZARDS IDENTIFICATION

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

|                      |  |
|----------------------|--|
|                      | <p>P363 Wash contaminated clothing before reuse.</p> <p>P403 + P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.</p> |
| <b>PICTOGRAMS</b>    |  |
| <b>Other dangers</b> | NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)  |
|                      | <p><b>Health</b> 3</p> <p><b>Fire</b> 0</p> <p><b>Reactivity</b> 1</p> <p><b>Special danger</b> OX</p>   |

## 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

|  |   |
|--|---|
| <b>Eye contact</b>   | If irritation persists, seek medical attention.   |
| <b>Skin contact</b>  | If irritation persists, seek medical attention.   |
| <b>Inhalation</b>  | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.   |
| <b>Ingestion</b>   | 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.    |
| <b>Most important symptoms and effects (acute and delayed)</b>         | Main symptoms of high exposure: Nausea and vomiting. Diarrhea. Cough. Breathing difficulties. Blurry vision. Skin irritation. Redness. Ref. section 11. |
| <b>Immediate medical attention and special treatment, if necessary</b> | In case of medical consultation, keep this sheet available.   |
| <b>General advice</b>  | Show this safety data sheet to the doctor in attendance.  |

## SECTION 05 - FIREFIGHTING MEASURES

|  |   |
|--|---|
| <b>Flammability</b>  | No  |
| <b>Ignition conditions</b>   | Risk of fire or explosion if heated or crushed in presence of combustible products.   |
| <b>Suitable extinguishing media</b>                                  | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  |
| <b>Unsuitable extinguishing media</b>                                | Data not available.   |
| <b>Hazardous combustion products</b>                                 | Hazardous combustion products formed under fire conditions: Toxic vapors of potassium chromate. - Potassium oxides, Chromium oxides.  |
| <b>Special fire and explosion hazards</b>                            | 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). |
| <b>Special protective equipment and precautions for firefighters</b> | 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

|  |   |
|--|---|
| <b>Methods and materials for containment and cleaning up /<br/>Personnel precautions, protective equipment</b> | 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

|                                    |  |
|------------------------------------|--|
| <b>Conditions for safe storage</b> | 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.  |
| <b>Methods of handling</b>         | 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/m <sup>3</sup> | 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/m <sup>3</sup> | 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<br>A substance to which exposure must be reduced to a minimum in accordance with section 42<br>Sensitizer<br>Carcinogenic effect detected in humans   |       |                            |   |
|                      |  | TWA   | 0.025000 mg/m <sup>3</sup> | 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.<br>ACGIH 'A1' applies to those substances confirmed as human carcinogens based on the weight of evidence from epidemiological studies |       |                            |   |
|                      |  | C     | 0.100000 mg/m <sup>3</sup> | 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.<br>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/m <sup>3</sup>     | 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/m <sup>3</sup>     | 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<br>A substance to which exposure must be reduced to a minimum in accordance with section 42<br>Sensitizer<br>Carcinogenic effect detected in humans   |       |                            |   |
|                      |  | TWA   | 0.025 mg/m <sup>3</sup>    | 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.<br>ACGIH 'A1' applies to those substances confirmed as human carcinogens based on the weight of evidence from epidemiological studies |       |                            |   |
|                      |  | C     | 0.1 mg/m <sup>3</sup>      | 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.<br>ACGIH 'A1' applies to those substances confirmed as human carcinogens based on the weight of evidence from epidemiological studies |       |                            |   |
|                      |  | TWA   | 0.050000 mg/m <sup>3</sup> | USA. ACGIH Threshold Limit Values (TLV)   |
|                      |  | TWA   | 0.05 mg/m <sup>3</sup>     | USA. ACGIH Threshold Limit Values (TLV)   |

|                            |  |
|----------------------------|--|
| <b>Data source</b>         | Sigma-Aldrich (Millipore Sigma)  |
| <b>Ventilation</b>         | Use fan.   |
| <b>Respiratory</b>         | 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.                           |
| <b>Gloves</b>              | Handle with gloves.  |
| <b>Eyes</b>                | Safety goggles with safety shutters.   |
| <b>Shoes</b>               | Safety shoes.  |
| <b>Clothing</b>            | 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. |
| <b>Engineering control</b> | 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

|  |   |
|--|---|
| <b>Physical state</b>                        | Liquid.   |
| <b>Appearance</b>                            | Liquide orange.   |
| <b>Odour</b>                                 | Donnée non disponible.  |
| <b>Odour threshold</b>                       | Data not available  |
| <b>pH</b>                                    | Solution aqueuse 1% = pH 4.04 Solution aqueuse 10% = pH 3.57. |
| <b>Melting point / Freezing point</b>        | Data not available  |
| <b>Initial boiling point</b>                 | Data not available  |
| <b>Boiling range</b>                         | Data not available  |
| <b>Flash point</b>                           | Data not available  |
| <b>Evaporation rate</b>                      | Data not available  |
| <b>Flammability</b>                          | No  |
| <b>Lower flammable / Explosive limit</b>     | Data not available  |
| <b>Upper flammable / Explosive limit</b>     | Data not available  |
| <b>Vapour pressure</b>                       | Data not available  |
| <b>Solubility</b>                            | Soluble dans l'eau. Insoluble dans l'alcool.                  |
| <b>Vapour density</b>                        | Data not available  |
| <b>Relative density</b>                      | 1.05g/ml  |
| <b>Partition coefficient water/n-octanol</b> | Data not available  |
| <b>Auto-ignition temperature</b>             | Data not available  |
| <b>Decomposition temperature</b>             | Data not available  |
| <b>Viscosity</b>                             | Data not available  |

## SECTION 10 - STABILITY AND REACTIVITY

|  |   |
|--|---|
| <b>Reactivity</b>  | Oxidizer: risk of fire in case of contact with combustible / organic substance.   |
| <b>Chemical stability</b>  | Sensitive to light. Sensitive to heat.  |
| <b>Possibility of hazardous reactions</b>  | Oxidizer. Keep away from open flames, hot surfaces and sources of ignition.   |
| <b>Conditions of instability (Including sensitivity to shock / static discharge / vibration)</b> | Avoid the accumulation of static electricity. Heat, flames, sparks. Light sensitive.  |
| <b>Incompatible material</b>   | 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. |
| <b>Hazardous decomposition products</b>  | Hazardous decomposition products formed under fire conditions. - Potassium oxides, Chromium oxides.   |

## SECTION 11 - TOXICOLOGICAL INFORMATION

## POTASSIUM DICHROMATE

|  |  |
|--|--|
| <b>Routes of exposure</b>                        | Ingestion, inhalation, skin and eyes.  |
| <b>Acute exposition effects / symptoms:</b>      | By exposure route below.   |
| <b>- Eyes</b>                                    | Severe irritation and burns that may cause permanent eye damage.   |
| <b>- Skin</b>                                    | 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").  |
| <b>- Inhalation</b>                              | 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.   |
| <b>Acute toxicity (Ingestion)</b>                | 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.   |
| <b>Chronic exposure effects / symptoms</b>       | 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. |
| <b>DL50 (specify species and route of entry)</b> | LD50 Oral - Rat - 67-168 mg/kg. LD50 Dermal - Rabbit - 2000 mg/kg.   |
| <b>CL50 (specify species and route of entry)</b> | 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<br>LD50 Dermal: > 5000 mg/kg - Rabbit<br>LC50 Inhalation: 1.9mg/L - 4h - Rat |

## SECTION 12 - ECOLOGICAL INFORMATION

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

## SECTION 13 - DISPOSAL CONSIDERATIONS

|                               |  |
|-------------------------------|--|
| <b>Waste Disposal Method</b>  | Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company. |
| <b>Contaminated Packaging</b> | 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<br>Respiratory or skin sensitization - Respiratory sensitizer category 1<br>Germ cell mutagenicity category 1A<br>Carcinogenicity category 1B<br>Reproductive toxicity category 1B<br>Specific Target Organ Toxicity - Repeated exposure category 1<br>Acute toxicity - Oral category 4<br>Respiratory or skin sensitization - Skin sensitize category 1<br>Specific target organ toxicity - Single exposure category 3<br>Skin corrosion/irritation - Skin corrosion category 1<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.

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