Safety Data Sheet POTASSIUM CHROMATE

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SECTION 1: Identification

GHS Product identifier

Product name	POTASSIUM CHROMATE

Other means of identification

Name	Product Code
POTASSIUM CHROMATE LR Chromic acid, dipotassium salt, Chromic acid, potassium salt, Potassium chromate (VI)	PL019

Recommended use of the chemical and restrictions on use

Analytical reagent, laboratory reagent, aniline black, textile mordant, enamels, inks and chromate pigments.

Supplier's details

Name	ChemSupply Australia Pty Ltd
Address	38-50 Bedford Street 5013 Gillman South Australia Australia
Telephone	08 8440 2000
email	www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Dangerous Goods of Class 6 (Toxic and Infectious Substances) are incompatible in a placard load with any of the following:
Class 1, Class 3, if the Class 3 dangerous goods are nitromethane, Class 8, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids; and are incompatible with food and food packaging in any quantity.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Acute toxicity, inhalation, Cat. 2

- Acute toxicity, oral, Cat. 3
- Acute toxicity, dermal, Cat. 4
- Carcinogenicity, Cat. 1B
- Serious eye damage/eye irritation, Cat. 1
- Germ cell mutagenicity, Cat. 1
- Respiratory sensitizer, Cat. 1
- Skin corrosion/irritation, Cat. 1B
- Skin sensitizer, Cat. 1
- Specific target organ toxicity following repeated exposure, Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), Cat. 1
- Hazardous to the aquatic environment, short-term (acute), Cat. 1

GHS label elements, including precautionary statements

Pictograms

Signal word **Danger**

Hazard statement(s)

H301	Toxic if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H330	Fatal if inhaled
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
H372	Causes damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physcian
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep 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.
P310	Immediately call a POISON CENTER/doctor/physcian
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor/physcian
P362+P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 194.2

Components

Component	CAS no.	Concentration
Potassium chromate (EC no.: 232-140-5; Index no.: 024-006-00-8)	**7789-00-6**	**100 % (weight)**
CLASSIFICATIONS: Carcinogenicity, Cat. 1B; Germ cell mutagenicity, Cat. 1B; Specific target organ toxicity following single exposure, Cat. 3; Skin corrosion/irritation, Cat. 2; Serious eye damage/eye irritation, Cat. 2A; Skin sensitizer, Cat. 1; Hazardous to the aquatic environment, short-term (acute), Cat. 1; Hazardous to the aquatic environment, long-term (chronic), Cat. 1. HAZARDS: H315 - Causes skin irritation; H317 - May cause an allergic skin reaction; H319 - Causes serious eye irritation; H335 - May cause respiratory irritation; H340 - May cause genetic defects [route]; H350i - ; H400 - Very toxic to aquatic life; H410 - Very toxic to aquatic life with long lasting effects. [SCLs/M-factors/ATEs]: Skin Sens. 1; H317: C ≥ 0,5 %		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor (at once). First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Consult a physician.
In case of skin contact	Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek medical advice /attention depending on the severity.
In case of eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical adv
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Small fire: Use dry chemical, CO2 or water spray.
If safe to do so, move undamaged containers from the fire area.
Large fire: Use water spray, fog or foam - Do NOT use water jets.

Cool containers with flooding quantities of water until well after the fire is out. Avoid getting water inside the containers.

Specific hazards arising from the chemical
Hazards from Combustion Products: May librate toxic fumes in fire (release of oxygen upon decomposition).

Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases. Runoff may pollute waterways.

Special protective actions for fire-fighters
Wear SCBA and chemical splash suit. Fully encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for these materials.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms. Evacuate the area of all non-essential personnel.
Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up
Do NOT touch or walk through this product. Do NOT touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas. Cover with plastic sheet to minimize spreading. Absorb with earth, sand or other non-combustible material and transfer to container.

SECTION 7: Handling and storage

Precautions for safe handling
Avoid generation or accumulation of dusts. Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure. Wash hands and face thoroughly after working with material. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid exposure - obtain special instructions before use.

Conditions for safe storage, including any incompatibilities
Store away from oxidizing agents, incompatibles, direct sunlight, heat and sources of ignition. Keep container tightly closed and in a cool, well-ventilated place Store away from combustible materials.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls
Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection
Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection
[34] Body Protection: Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection
Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	Yellow crystals.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	971 °C
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	8.6 - 9.8 (50 g/l, H2O, 20 °C)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble (630 g/L @ 20 °C) Solubility in Organic Solvents: Insoluble in alcohol.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 2.73
Relative vapor density	6.7 g/l
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes
No data available.

Further safety characteristics (supplemental)
No data available.

SECTION 10: Stability and reactivity

Reactivity
Stable under normal conditions of storage and handling.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions
Hazardous Polymerization: Will not occur.

Conditions to avoid
Incompatibles

Incompatible materials
Organic or other readily oxidisable material (paper, wood, sulfur, aluminium or plastic), finely powdered metals, strong oxidizing agents, reducing agents, hydrazine and derivatives, chlorates, phosphides, sulfides and flammable materials.

Hazardous decomposition products
Potassium and chrome oxides.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Ingestion: Corrosive. Swallowing can cause severe burns of the mouth, throat, and stomach, leading to coma and death. Lethal dose for man is 0.5 g. Symptoms may include sore throat, severe gastrointestinal pain, vomiting, diarrhea, violent gastroenteritis, peripheral vascular collapse, dizziness, intense thirst, muscle cramps, shock, coma, abnormal bleeding, fever, liver damage and acute renal failure.

Inhalation: Corrosive. Extremely destructive to tissues of the mucous membranes and upper respiratory tract leading to irritation, burns and inflammation. Symptoms may include sore throat, coughing, shortness of breath and labored breathing. May produce pulmonary sensitization or allergic asthma. May cause burns, ulceration and perforation of the nasal septum. Since the healing proces of ulcers is poor, chromium substances penetration into the wound. Higher exposures may cause pulomary edema.

Skin corrosion/irritation
Corrosive. Symptoms of redness, pain, irritation and severe burns can occur. May cause nausea and vomiting. Irritating to skin. Can be absorbed through cuts and abrasions causing ulcers (chrome sores), which may cause systemic poisoning, affecting kidney and liver functions. May cause sensitisation by skin contact.

Serious eye damage/irritation
Corrosive. Irritating to eyes. May cause blurred vision, redness, pain and severe tissue burns. May cause corneal injury, conjunctivitis, ulceration, or blindness.

Respiratory or skin sensitization
Respiratory sensitisation: Sensitization - Respiratory: Category 1

Skin Sensitisation: Skin Corrosion/Irritation: Category 1

Germ cell mutagenicity
Germ cell mutagenicity: Germ Cell Mutagenicity: Category 1B

Carcinogenicity
Carcinogenicity: Category 1A - Safe Work Australia.
Chromium [VI] compounds - evaluated as a group - have been listed in the IARC Monographs as Group 1: Carcinogenic to humans.

Reproductive toxicity
Toxic to Reproduction: Category 1

Specific target organ toxicity (STOT) - single exposure
No data available.

Specific target organ toxicity (STOT) - repeated exposure
Specific target organ toxicity - Repeated Exposure Category 1

Aspiration hazard
No data available.

Additional information
No data available.

SECTION 12: Ecological information

Toxicity
Acute Toxicity - Daphnia: EC50 (Daphnia magna) 15 mg/l/48h.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations
Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)
UN Number: 3288
Class: 6.1
Packing Group: II
Proper Shipping Name: TOXIC SOLID, INORGANIC, N.O.S. (Contains Potassium Chromate)

Hazchem emergency action code (EAC)
2X

IMDG
UN Number: 3288
Class: 6.1
Packing Group: II
Proper Shipping Name: TOXIC SOLID, INORGANIC, N.O.S. (Contains Potassium Chromate)

IATA
UN Number: 3288
Class: 6.1
Packing Group: II
Proper Shipping Name: TOXIC SOLID, INORGANIC, N.O.S. (Contains Potassium Chromate)

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP
Poison Schedule: S6

SECTION 16: Other information

Further information/disclaimer
ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'
Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.
Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.
Safe Work Australia, Workplace Exposure Standards for Airbourne Contaminants, December 2019
Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au
IATA, Dangerous Goods Regulations (DGR)
IMO, International Maritime Dangerous Goods Code (IMDG)