

Safety Data Sheet **POTASSIUM DICHROMATE 10% w/v solution**

SDS no. EF63VCYU • Version 1.0 • Date of issue: 2026-04-14

SECTION 1: Identification

GHS Product identifier

Product name POTASSIUM DICHROMATE 10% w/v solution

Product number 0237

Recommended use of the chemical and restrictions on use

Laboratory reagent.

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

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Acute toxicity, inhalation, Cat. 2
- Acute toxicity, oral, Cat. 4
- Carcinogenicity, Cat. 1B
- Germ cell mutagenicity, Cat. 1B
- Respiratory sensitizer, Cat. 1
- Serious eye damage/eye irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1B
- Skin sensitizer, Cat. 1
- Specific target organ toxicity following repeated exposure, Cat. 1
- Toxic to reproduction, Cat. 1B
- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), Cat. 1

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GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H302	Harmful if swallowed
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
H340	May cause genetic defects
H350	May cause cancer
H360	May damage fertility or the unborn child
H372	Causes damage to organs [organs] through prolonged or repeated exposure [route]
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+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/physician
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor/physician
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.
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Component	Identification	Weight %	Classifications
Water	CAS no.: 7732-18-5 EC no.: 231-791-2	>= 90 %	CLASSIFICATIONS: No data available. HAZARDS: No data available.
Potassium dichromate	CAS no.: 7778-50-9 EC no.: 231-906-6 Index no.: 024-002-00-6	<= 10 %	CLASSIFICATIONS: Oxidizing solids, Cat. 2; Carcinogenicity, Cat. 1B; Germ cell mutagenicity, Cat. 1B; Reproductive toxicity, Cat. 1B; Acute toxicity, inhalation, Cat. 2; Acute toxicity, oral, Cat. 3; Acute toxicity, dermal, Cat. 4; Specific target organ toxicity,

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Component	Identification	Weight %	Classifications
			repeated exposure, Cat. 1; Skin corrosion/irritation, Cat. 1B; Sensitization - respiratory, Cat. 1; Sensitization - skin, Cat. 1; Hazardous to the aquatic environment, short-term (acute), Cat. 1; Hazardous to the aquatic environment, long-term (chronic), Cat. 1. HAZARDS: H272 - May intensify fire; oxidizer; 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; H340 - May cause genetic defects [route]; H350 - May cause cancer [route]; H360FD - May damage fertility. May damage the unborn child.; H372 - Causes damage to organs [organs] through prolonged or repeated exposure [route]; H400 - Very toxic to aquatic life; H410 - Very toxic to aquatic life with long lasting effects. [SCLs/M-factors/ATEs]: STOT SE 3; H335: C \geq 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. Get medical aid if cough or other symptoms appear.
In case of skin contact	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician
In case of eye contact	If in eyes, hold eyelids apart and flush eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor, or for at least 15 minutes.
If swallowed	Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

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 in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

SECTION 5: Fire-fighting measures

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Suitable extinguishing media

Specific Methods: Small fire: Use dry chemical, CO₂, water spray or foam.

Large fire: Use water spray, fog or foam.

If safe to do so, move undamaged containers from the fire area.

Specific hazards arising from the chemical

Hazards from Combustion Products: Oxygen, irritating and toxic fumes and gases, oxides of potassium, chrome oxides.

Fire may produce irritating, toxic, and/or corrosive gases. Containers may explode when heated.

Special protective actions for fire-fighters

Wear SCBA and chemical splash suit. Fully-encapsulating, gas-tight suits should be worn for maximum protection.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

Methods and materials for containment and cleaning up

Do not contaminate. Keep combustibles (wood, paper, clothing, oil, and so on) away from spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use water spray to knock down vapours or divert vapour clouds. Prevent entry into waterways, drains or confined areas. Prevent exposure to heat.

Small liquid spill: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place in a loosely-covered container for later disposal.

Large liquid spill: SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with eyes, skin or clothing. Avoid breathing vapour, or spray mist. Ensure good ventilation/exhaustion at the workplace. In case of insufficient ventilation, wear suitable respiratory equipment. Wear special protective equipment (Sec. 8) when handling. If you feel unwell, seek medical attention and show the label when possible. Under no circumstances eat, drink or smoke while handling this material. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid cross-contamination of street clothes. Discard contaminated shoes. Open and handle container with care. Keep away from combustible material. Keep away from incompatibles such as reducing agents, combustible materials, organic materials. Remove and dispose of any spilled dichromates; do not return to original containers. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area in suitable tightly closed containers. Keep well closed and protected from direct sunlight and moisture.

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

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chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

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

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/ NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance, such as physical state and colour	
Colour	Orange-red
Odour	Odourless.
Odour threshold	
Melting point and freezing point	Not determined
Boiling point or initial boiling point and boiling range	Not determined
Flammability	Not flammable
Lower and upper explosion limit or lower and upper flammability limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not determined
pH	pH of 10% soln: 3.57.
Kinematic viscosity	Not determined
Solubility	Solubility in Water: Miscible
Partition coefficient — n-octanol/ water (logarithmic value)	Not determined
Vapour pressure	Not determined
Density and relative density	Approx 1
Relative vapour density	Not determined

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Particle characteristics	Not applicable
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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

None under normal use conditions.

Hazardous Polymerization: Will not occur.

Conditions to avoid

Heat, incompatibles.

Incompatible materials

Reducing agents, acids.

Hazardous decomposition products

Irritating and toxic fumes and gases, oxides of potassium, chrome oxides.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Ingestion: Harmful if swallowed. May cause irritation to the mouth, throat, gastrointestinal tract and stomach. Can cause sore throat, vomiting, diarrhoea. May cause violent gastroenteritis, peripheral vascular collapse, dizziness, intense thirst, muscle cramps, shock, coma, abnormal bleeding, fever, liver damage and acute renal failure. May cause methaemoglobinaemia, convulsions, and death. Methaemoglobinaemia is characterized by dizziness, drowsiness, headache, shortness of breath, cyanosis (bluish discolouration of skin due to deficient oxygenation of the blood), rapid heart rate and chocolate-brown coloured blood. Highly absorbed through the membrane in the digestive system.

Inhalation: Fatal if inhaled. May cause irritation with symptoms that may include sore throat, coughing, shortness of breath, and labored breathing. May produce pulmonary sensitization or allergic asthma due to allergic sensitization of the respiratory tract.

Skin corrosion/irritation

Causes skin irritation, with redness and pain. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.

Serious eye damage/irritation

Causes serious eye irritation. Contact can cause blurred vision, redness and pain.

Respiratory or skin sensitization

Respiratory sensitisation: Sensitization - Respiratory: Category 1

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sensitisation: Sensitization - Skin: Category 1

H317 May cause an allergic skin reaction.

Germ cell mutagenicity

Germ cell mutagenicity: Germ Cell Mutagenicity: Category 1B

H340 May cause genetic defects.

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Carcinogenicity

Chromium[VI] is evaluated in the IARC Monographs (Vol. 49; 1990) as Group 1: Carcinogenic to humans.

Carcinogenicity: Category 1A

H350 May cause cancer.

Reproductive toxicity

Toxic to Reproduction: Category 1B

H360 May damage fertility or the unborn child.

Specific target organ toxicity (STOT) - single exposure

Based on available data, classification data are not met

Specific target organ toxicity (STOT) - repeated exposure

Causes damage to organs through prolonged or repeated exposure

Aspiration hazard

Based on available data, classification data are not met

Additional information

Chronic Effects: Repeated or prolonged exposure can cause ulceration and perforation of the nasal septum, respiratory irritation, liver and kidney damage and ulceration of the skin. Ulcerations at first may be painless, but may penetrate to the bone producing chrome holes. Repeated or prolonged contact may cause skin sensitization and sensitization dermatitis. Repeated or prolonged inhalation exposure may cause asthma. Known to be a human carcinogen. May cause respiratory tract cancer. May cause heritable genetic damage to human germ cells. Effects may be delayed. Laboratory experiments have resulted in mutagenic effects. Repeated or prolonged exposure may cause erosion and discolouration of the teeth. Absorption may result in hepatic and renal damage.

SECTION 12: Ecological information

Toxicity

Chromium probably occurs as the insoluble (CrIII) oxide (Cr₂O₃.nH₂O) in the soil, as the organic matter in the soil is expected to reduce any soluble chromate to insoluble chromic oxide (Cr₂O₃). Chromium in the soil can be transported to the atmosphere by way of aerosol formation. Chromium is also transported from the soil through runoff and leaching of water. Most of the chromium in surface waters may be present in particulate form as sediment. Some of the particulate chromium would remain as suspended matter and ultimately be deposited in the sediments. Chromium present usually as (CrIII) in the soil and is characterized by its lack of mobility, except in cases where Cr(VI) is involved. Chromium (VI) of natural origin is rarely found.

Persistence and degradability

Biologic degradation: Methods for the determination of biodegradability are not applicable to inorganic substances.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Bioaccumulative potential

Concentration in organisms possible.

Bioconcentration factor for *Salmo gairdneri* (rainbow trout) of 2.8 (muscle), 180 days duration.

Other adverse effects

Other Information: H410 Very toxic to aquatic life with long lasting effects.

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.

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Sewage disposal

Concentration in organisms possible.

Bioconcentration factor for *Salmo gairdneri* (rainbow trout) of 2.8 (muscle), 180 days duration.

Other disposal recommendations

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

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 3287

Class: 6.1

Packing Group: III

Proper Shipping Name: TOXIC LIQUID, INORGANIC, N.O.S.(Contains 10% Potassium Chromate)

Hazchem emergency action code (EAC)

2X

IMDG

UN Number: 3287

Class: 6.1

Packing Group: III

Proper Shipping Name: TOXIC LIQUID, INORGANIC, N.O.S.(Contains 10% Potassium Chromate)

IATA

UN Number: 3287

Class: 6.1

Packing Group: III

Proper Shipping Name: TOXIC LIQUID, INORGANIC, N.O.S.(Contains 10% 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.

Preparation information

All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. ChemSupply Australia Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.

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.'

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Safe Work Australia, 'National Code of Practice for 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 Airborne 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)