

Safety Data Sheet CHROMIUM TRIOXIDE 5%

SDS no. MB5BPPBX • Date of issue: 2024-11-18

SECTION 1: Identification

GHS Product identifier

Product name CHROMIUM TRIOXIDE 5%

Product number ACRO

Recommended use of the chemical and restrictions on use

Chemicals (chromates, oxidising agents, catalysts), chromium-plating intermediate, medicine (caustic), process engraving, anodising, ceramic glazes, coloured glass, metal cleaning, inks, tanning, paints, textile mordant, etchant for plastics and 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

National contact

Name Australian Biostain Pty Ltd
Address 16 Shipwright Road
5016 Largs North SA
Australia

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. 3
- Acute toxicity, oral, Cat. 4
- Hazardous to the aquatic environment, long-term (chronic), Cat. 2
- Carcinogenicity, Cat. 1A
- Serious eye damage/eye irritation, Cat. 1
- Germ cell mutagenicity, Cat. 1B
- Toxic to reproduction, Cat. 2
- Respiratory sensitizer, Cat. 1
- Skin corrosion/irritation, Cat. 1A
- Skin sensitizer, Cat. 1
- Specific target organ toxicity following repeated exposure, Cat. 2

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
H331	Toxic if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H340	May cause genetic defects
H350	May cause cancer [inhalation]
H361	Suspected of damaging fertility or the unborn child [effect, route]
H373	May cause damage to organs [kidneys, liver, respiratory system, skin, eyes] through prolonged or repeated exposure [route]
H411	Toxic to aquatic life with long lasting effects

Precautionary statement(s)

P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
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
P314	Get medical advice/attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

Safety Data Sheet

CHROMIUM TRIOXIDE 5%

SDS no. MB5BPPBX • Date of issue: 2024-11-18

P342+P311
P362+P364
P391
P403+P233
P405
P501

If experiencing respiratory symptoms: Call a POISON CENTER/doctor/physician
Take off contaminated clothing and wash it before reuse.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Components

Component	CAS no.	Concentration
CHROMIUM TRIOXIDE (EC no.: 215-607-8; Index no.: 024-001-00-0)	1333-82-0	< 5 % (weight)
CLASSIFICATIONS: Oxidizing solids, Cat. 1; Carcinogenicity, Cat. 1; Germ cell mutagenicity, Cat. 1B; Toxic to reproduction, Cat. 2; Acute toxicity, inhalation, Cat. 2; Acute toxicity, dermal, Cat. 3; Acute toxicity, oral, Cat. 3; Specific target organ toxicity following repeated exposure, Cat. 1; Skin corrosion/irritation, Cat. 1A; Respiratory sensitizer, Cat. 1; 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: H271 - May cause fire or explosion; strong oxidizer; H301 - Toxic if swallowed; H311 - Toxic 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]; H361f - ; 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 ≥ 1 %		
Water (EC no.: 231-791-2)	7732-18-5	>= 95 % (weight)
CLASSIFICATIONS: No data available. HAZARDS: No data available.		

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, avoid becoming a casualty. Make patient comfortable, keep warm and at rest until fully recovered. If breathing is difficult (or develops a bluish skin discolouration), supply oxygen by a qualified person. Apply artificial respiration with a respiratory medical device if not breathing. Do not use mouth to mouth resuscitation. Immediately medical attention is required.

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 advice.

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

Foam, dry powder, carbon dioxide, water spray or sand. Do not use water in a jet.

Specific hazards arising from the chemical

Hazards from Combustion Products: May irritate toxic, irritant smoke and fumes in fire. Corrosive vapours.

Special protective actions for fire-fighters

Wear SCBA and chemical splash suit. Structural firefighter's uniform will provide limited protection.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Evacuate the area of all non-essential personnel. Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.

Wear protective clothing specified for normal operations (see Section 8)

Environmental precautions

H411 Toxic to aquatic life with long lasting effects.

Methods and materials for containment and cleaning up

Absorb with dry earth, sand or other non-combustible material. Use clean nonsparking tools to collect and seal in properly labelled drums for disposal in an area approved by local authority bylaws. Wash area down with excess water to remove residual material.

Prevent further leakage or spillage and prevent from entering drains

SECTION 7: Handling and storage

Precautions for safe handling

Do not eat, drink or smoke when using this product. Eye wash facilities and emergency shower must be available when handling this product. Good personal hygiene procedures should be implemented. Take off contaminated clothing and wash it before reuse. Wash promptly with soap and water if skin becomes contaminated.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Not normally required. 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.

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	Amber liquid.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	No data available.
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	May intensify fire.
pH	Acidic
Kinematic viscosity	No data available.
Solubility	No data available.
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: 1.1
Relative vapor density	No data available.
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

May react violently with reducing agents.

Conditions to avoid

Avoid storing in direct sunlight and avoid extremes of temperature.

Incompatible materials

Organic combustible substances (eg alcohols, amines, ethers, ketones, carboxylic acids), alkali metals, ammonia, nonmetals, hydrazine and derivatives, nitrates, reducing agents, combustible substances, acids and halogenated materials.

Hazardous decomposition products

Smoke and irritant fumes.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 oral rat: 50 mg/kg - Chromic acid

Acute Toxicity - Inhalation: LD50 inhalation rat: 0.217 mg/L/4h - Chromic acid

Ingestion: Corrosive. Symptoms include sore throat, vomiting, diarrhoea, dizziness, intense thirst, muscle cramps, shock, coma, abnormal bleeding, and fever. May cause irritation and burns of the digestive tract, liver and kidney damage. Ingestion of the substance leads to severe pain in the gastrointestinal tract.

Inhalation: May cause cancer by inhalation. Harmful if inhaled. Inhalation of dust or mist can cause irritation of the nasal septum and respiratory tract, sore throat, coughing, shortness of breath and labored breathing. Extremely destructive to tissues of the mucous membranes and upper respiratory tract. Prolonged or repeated exposure, or if inhaled in excessive quantities may cause ulceration and perforation of the nasal septum. The substance rapidly leads to sensitization and to allergic reactions of the respiratory tract (risk of pneumonia!) and to damage of the nasal mucous membranes (under given circumstances perforation of the septum) in predisposed persons.

Skin corrosion/irritation

Acute Toxicity - Dermal: LD50 dermal rat: 55 mg/kg - Chromic acid

Causes severe burns. Harmful in contact with skin. Direct contact may cause skin irritation sensitisation or dermatitis. Contact with skin can cause external ulcers or ôchrome sores. These occur most commonly at breaks in the skin, nail roots, creases over knuckles, finger webs, backs of hands and forearms. Toxic quantities can be absorbed through the skin causing systemic poisoning and/or kidney/liver damage.

Serious eye damage/irritation

Causes severe burns. Risk of serious damage to eyes. May cause corneal burns.

Respiratory or skin sensitization

Safety Data Sheet

CHROMIUM TRIOXIDE 5%

SDS no. MB5BPPBX • Date of issue: 2024-11-18

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

Skin Sensitisation: Risk of sensitization. Patch test (humans): positive.

Germ cell mutagenicity

Germ cell mutagenicity: H340 May cause genetic defects.

Carcinogenicity

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

Reproductive toxicity

H361 Suspected of damaging fertility or the unborn child.

Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

Specific target organ toxicity (STOT) - repeated exposure

H372 Causes damage to organs (kidneys, liver, respiratory system, skin, eyes) through prolonged or repeated exposure.

Aspiration hazard

Not classified based on available information.

Additional information

Chronic Effects: Prolonged or repeated exposure to chromic acid dust/mist may cause chronic eye irritation, skin ulceration and ulceration and perforation of the nasal septum, chronic rhinitis, pharyngitis, inflammation of the larynx, kidney and liver damage, changes in the blood, increased risk of developing respiratory cancer.

SECTION 12: Ecological information

Toxicity

Ecological Information: H411 Toxic to aquatic life with long lasting effects.

Bioaccumulative potential

Not bioaccumulative.

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.

Sewage disposal

Not bioaccumulative.

Other disposal recommendations

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

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 1755

Safety Data Sheet

CHROMIUM TRIOXIDE 5%

SDS no. MB5BPPBX • Date of issue: 2024-11-18

Class: 8
Packing Group: II
Proper Shipping Name: CHROMIC ACID SOLUTION

Hazchem emergency action code (EAC)
2X

IMDG
UN Number: 1755
Class: 8
Packing Group: II
EMS Number:
Proper Shipping Name: CHROMIC ACID SOLUTION

IATA
UN Number: 1755
Class: 8
Packing Group: II
Proper Shipping Name: CHROMIC ACID SOLUTION

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.'
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

Safety Data Sheet
CHROMIUM TRIOXIDE 5%

SDS no. MB5BPPBX • Date of issue: 2024-11-18

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)