

## Safety Data Sheet CHROMIUM (III) CHLORIDE Hexahydrate

SDS no. 5JNT423Z • Version 1.0 • Date of issue: 2025-12-31

### SECTION 1: Identification

#### GHS Product identifier

Product name CHROMIUM (III) CHLORIDE Hexahydrate

Product number CL126

#### Recommended use of the chemical and restrictions on use

Chromium salts, intermediates, textile mordant, chromium plating including vapour plating, preparation of sponge chromium, catalyst for polymerising olefins, waterproofing 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](http://www.chemsupply.com.au)

#### Emergency phone number

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

### SECTION 2: Hazard identification

#### General hazard statement

Not 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

- Corrosive to metals, Cat. 1
- Acute toxicity, oral, Cat. 4
- Skin sensitizer, Cat. 1B
- Hazardous to the aquatic environment, long-term (chronic), Cat. 2

#### GHS label elements, including precautionary statements

##### Pictograms



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#### Signal word

#### Warning

#### Hazard statement(s)

H290  
H302  
H317  
H411

May be corrosive to metals  
Harmful if swallowed  
May cause an allergic skin reaction  
Toxic to aquatic life with long lasting effects

#### Precautionary statement(s)

P234  
P264  
P261  
P273  
P390  
P270  
P272  
P391  
P406  
P301+P312  
P280  
P501  
P330  
P302+P352  
P501  
P333+P313  
P321  
P362+P364  
P501

Keep only in original packaging.  
Wash ... thoroughly after handling.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Avoid release to the environment.  
Absorb spillage to prevent material-damage.  
Do not eat, drink or smoke when using this product.  
Contaminated work clothing should not be allowed out of the workplace.  
Collect spillage.  
Store in a corrosive resistant/... container with a resistant inner liner.  
IF SWALLOWED: Call a POISON CENTER/doctor/...if you feel unwell,  
Wear protective gloves/protective clothing/eye protection/face protection.  
Dispose of contents/container to ...  
Rinse mouth.  
IF ON SKIN: Wash with plenty of water/...  
Dispose of contents/container to ...  
If skin irritation or rash occurs: Get medical advice/attention.  
Specific treatment (see ... on this label).  
Take off contaminated clothing and wash it before reuse.  
Dispose of contents/container to ...

## SECTION 3: Composition/information on ingredients

#### Mixtures

<b>Molecular weight</b>	266.45
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Component	Identification	Weight %	Classifications
Chromium(III) chloride hexahydrate	CAS no.: 10060-12-5	97 - 100 %	CLASSIFICATIONS: Acute toxicity, oral, Cat. 4; Corrosive to metals, Cat. 1; Hazardous to the aquatic environment, long-term (chronic), Cat. 2; Eye damage/irritation, Cat. 2; Sensitization - skin, Cat. 1; Specific target organ toxicity, single exposure, Cat. 3. HAZARDS: H290 - May be corrosive to metals; H302 - Harmful if swallowed; H317 - May cause an allergic skin reaction; H319 - Causes serious eye irritation; H335 - May cause respiratory irritation; H336 - May cause drowsiness or dizziness; H411 - Toxic to aquatic life with long lasting effects.

## SECTION 4: First-aid measures

#### Description of necessary first-aid measures

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General advice	First aid is not generally required. If in doubt, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.  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	Rinse with plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If persistent irritation occurs, obtain medical attention.
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.

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## SECTION 5: Fire-fighting measures

#### Suitable extinguishing media

Small fire: Use dry chemical, CO<sub>2</sub>, water spray or foam.

Large fire: Use water spray, fog or foam.

If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out.

#### Specific hazards arising from the chemical

May liberate toxic fumes in fire including hydrogen chloride.

#### Special protective actions for fire-fighters

Wear SCBA and structural firefighter's uniform.

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## 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.

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

#### Methods and materials for containment and cleaning up

Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.

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## SECTION 7: Handling and storage

#### Precautions for safe handling

Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

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#### Conditions for safe storage, including any incompatibilities

Unsuitable Materials:

Corrosive to Metals: Category 1

H290 May be corrosive to metals.

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## SECTION 8: Exposure controls/personal protection

#### Control parameters

##### CAS: 10060-12-5

Chromium(III) chloride hexahydrate

AU/SWA (Australia): 0.5 mg/m<sup>3</sup> TWA

#### 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.

##### 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 an 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.

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## SECTION 9: Physical and chemical properties

#### Basic physical and chemical properties

Physical state	Solid
Appearance	Greenish-black or violet deliquescent crystals. Dilute aqueous solutions are violet. Concentrated aqueous solutions are green.
Color	No data available.
Odor	Slightly pungent.
Odor threshold	No data available.
Melting point/freezing point	80-83 °C

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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	2 - 3 (50 g/l H <sub>2</sub> O)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble (590 g/l at 20 °C). Solubility in Organic Solvents: Soluble in alcohol. Slightly soluble in acetone. Insoluble in ether.
Partition coefficient n-octanol/ water (log value)	No data available.
Vapor pressure	low
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 1.76
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.

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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

Hazardous Polymerization: Will not occur.

### Conditions to avoid

Strong heating.

### Incompatible materials

Fluorine, alkali metals and strong oxidizing agents.

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#### Hazardous decomposition products

Hydrogen chloride gas

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## SECTION 11: Toxicological information

#### Information on toxicological effects

##### Acute toxicity

Acute Toxicity - Oral: LD50 (rat): 1790 mg/kg.

Ingestion: Harmful if swallowed. Causes burns in oesophagus and stomach. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Only slight absorption (< 1 %) via gastrointestinal tract in comparison with hexavalent chromium. The greater, nonabsorbed part of chromium(III) is eliminated with the faeces.

Inhalation: May cause slight respiratory tract irritation.

##### Skin corrosion/irritation

May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.

##### Serious eye damage/irritation

May cause mechanical irritation to eyes.

##### Respiratory or skin sensitization

Respiratory sensitisation: Not classified based on available information.

Skin Sensitisation: Skin sensitization: Category 1B

H317 May cause an allergic skin reaction.

##### Germ cell mutagenicity

Not classified based on available information.

##### Carcinogenicity

Chromium[III] compounds is evaluated in the IARC Monographs (Vol. 49; 1990) as Group 3: Not classifiable as to carcinogenicity to humans.

Not classified based on available information.

##### Reproductive toxicity

Not classified based on available information.

##### Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

##### Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

##### Aspiration hazard

Not classified based on available information.

#### Additional information

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Chromium(III) chloride hexahydrate: Oral

Rat

1790 mg/kg

LD50

Intraperitoneal

Mouse

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285 MG/KG  
LD50

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## SECTION 12: Ecological information

### Toxicity

Acute Toxicity - Fish: static test LC50 - Oncorhynchus mykiss (rainbow trout) - 11.2 - 31.5 mg/l - 96 h  
(OECD Test Guideline 203)

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## 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.

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## SECTION 14: Transport information

### ADG (Road and Rail)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

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## SECTION 15: Regulatory information

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

#### Australia SUSMP

Poison Schedule: NS

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## 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

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

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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](https://hcis.safeworkaustralia.gov.au)  
IATA, Dangerous Goods Regulations (DGR)  
IMO, International Maritime Dangerous Goods Code (IMDG)