



Safety Data Sheet

Date of Issue: 19.10.2021

Date of Expiry: 19.10.2026

1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name : ECP Limited
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Product Name	Chromium III Chloride hexahydrate
Product Code	19201
CAS No.	10060-12-5

Recommended use : Laboratory Investigations

2: Hazard's identification

2.1 GHS Classification

Corrosive to Metals (Category A), Met. Corr., H290
Acute toxicity, Oral (Category D), H302
Skin sensitization (Category B), H317
Aquatic toxicity (Acute or Chronic) (Category B), H411

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word : Warning

Hazard statement(s)

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention

P234 Keep only in original container.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see supplemental first aid instructions on this label).
P330 Rinse mouth.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.
P391 Collect spillage.

Storage

P406 Store in corrosive resistant container with a resistant inner liner.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards - none

3: Composition/information on ingredients

3.1 Substances

Synonyms	:	Chromium trichloride hexahydrate Hexaaquachromium(III) chloride
Formula	:	Cl ₃ Cr · 6H ₂ O
Molecular weight	:	266.45 g/mol
CAS-No.	:	10060-12-5
EC-No.	:	233-038-3

4: First aid measures

4.1 Description of first-aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Other information :

For advice, contact a Poisons Information Centre (Phone e.g. Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Hydrogen chloride gas

Chromium oxides

Not combustible.

Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

No metal containers.

Tightly closed. Dry.

hygroscopic Store under inert gas.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

Component	CAS No.	Value	Control parameters	Basis
chromium trichloride hexahydrate	10060-12-5	WES-TWA	0.5 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

8.2 Exposure controls

Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

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.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

Control of environmental exposure

Do not let product enter drains.

9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	:	Solid
Appearance	:	Greenish-black or violet deliquescent crystals. Dilute aqueous solutions are violet. Concentrated aqueous solutions are green.
Odour	:	Slightly pungent.
Melting Point	:	80-83 °C
Solubility in Water	:	Soluble (590 g/l at 20 °C).
Solubility in Organic Solvents	:	Soluble in alcohol. Slightly soluble in acetone. Insoluble in ether.
Specific Gravity	:	1.76
pH	:	2 - 3 (50 g/l H ₂ O)
Vapour Pressure	:	low

Flammability : Non-combustible material.
Molecular Weight : 266.45

10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Exothermic reaction with :

Fluorine

Alkali metals

Lithium

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

11: Toxicological information

11.1 Information on toxicological effects

Toxicology Information :

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. If mishandled or overexposed to this product the following symptoms or effects may occur.

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 diarrhoea. 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 :

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

Eye :

May cause mechanical irritation to eyes.

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.

Reproductive Toxicity :

Not classified based on available information.

STOT-single exposure :

Not classified based on available information.

STOT-repeated exposure :

Not classified based on available information.

Mutagenicity :

Not classified based on available information.

12: Ecological information

12.1 Toxicity**Ecotoxicity :**

Quantitative data on the ecological effect of this product are not available.

Persistence and degradability :

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

Other adverse effects :

Adverse ecological effects cannot be excluded in the event of improper handling or disposal.

Other precautions :

Do not allow to enter waters, waste water, or soil.

Environmental Protection :

Do not allow product to enter drains, waterways or sewers.

Acute Toxicity – Fish :

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

13: Disposal considerations

Disposal Considerations :

Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

14: Transport Information Table
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		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	3260	3260	3260
14.2	UN Proper Shipping name	CORROSIVE SOLID, ACIDIC,	CORROSIVE SOLID, ACIDIC,	Corrosive solid, acidic, inorganic,

		INORGANIC, N.O.S. (chromium trichloride hexahydrate)	INORGANIC, N.O.S. (chromium trichloride hexahydrate)	n.o.s. (chromium trichloride hexahydrate)
14.3	Transport Hazard Class	8	8	8
14.4	Packaging group	III	III	III
14.5	Environmental Hazards	Yes	Yes	yes
14.6	Special precautions for user	none		
14.7	Hazchem Code	2X		

15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

HSNO Approval Code: HSR004020

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits
Group Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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