

SAFETY DATA SHEET

Preparation Date: 05/05/2015

Revision Date: 02/28/2018

Revision Number: G3

1. IDENTIFICATION

Product identifier

Product code: C1344
Product Name: CHROMIC CHLORIDE, HEXAHYDRATE, USP

Other means of identification

Synonyms: Chromium (III) Chloride Hexahydrate; Chromium Chloride, hexahydrate; Chromium sesquichloride; Chromium trichloride hexahydrate; Hexaaquachromium (III) chloride; Hexaaquachromium chloride
CAS #: 10060-12-5
RTECS # GB5450000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

| | |
|--|-------------|
| Acute toxicity - Oral | Category 4 |
| Serious eye damage/eye irritation | Category 2A |
| Skin sensitization | Category 1B |
| Specific target organ toxicity (single exposure) | Category 3 |

Label elements

Danger

Hazard statements

Harmful if swallowed
 Causes serious eye irritation
 May cause respiratory irritation

May cause an allergic skin reaction



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Contaminated work clothing must not be allowed out of the workplace
Wear protective gloves
Wear eye/face protection

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS-No. | Weight % |
|-------------------------------|------------|----------|
| Chromic Chloride, hexahydrate | 10060-12-5 | 100 |

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms Causes serious eye irritation
May cause conjunctivitis
May cause corneal opacity
May cause an allergic skin reaction
May cause skin irritation
May cause irritation of respiratory tract
Coughing and wheezing
May cause pulmonary edema
It may affect the kidneys
Causes digestive (gastrointestinal) tract irritation
Ingestion may cause nausea, vomiting, and diarrhea

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: No information available.

Specific hazards: No information available.

Special Protective Actions for Firefighters

Specific Methods: No information available.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe vapors/dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Hygroscopic. Protect from moisture. Store away from incompatible materials.

Incompatible Materials:

Oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

| Components | CAS-No. | OSHA | NIOSH | ACGIH | AIHA WEEL |
|-------------------------------|------------|--|-------|--|-----------|
| Chromic Chloride, hexahydrate | 10060-12-5 | 0.5 mg/m ³ TWA (as Cr - chromium (III) compounds) | None | 0.5 mg/m ³ TWA (as Cr - chromium (III) inorganic compounds) | None |

Canada

| Components | CAS-No. | Canada - Alberta | Canada - British Columbia | Canada - Ontario | Canada - Quebec |
|-------------------------------|------------|--|--|------------------|-----------------|
| Chromic Chloride, hexahydrate | 10060-12-5 | 0.5 mg/m ³ TWA (as Cr - chromium (III) compounds) | 0.5 mg/m ³ TWA (as Cr - chromium (III) compounds) | None | None |

Australia and Mexico

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| Components | CAS-No. | Australia | Mexico |
|-------------------------------|------------|--|--|
| Chromic Chloride, hexahydrate | 10060-12-5 | 0.5 mg/m ³ TWA (as Cr - chromium (III) compounds) | 0.5 mg/m ³ TWA (as Cr - chromium (III) inorganic compounds) |

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles
- Skin and body protection:** Chemical resistant apron
Gloves
Long sleeved clothing
- Respiratory protection:** Wear respirator with dust filter.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|--|--|--|
| Physical state: Solid | Appearance: Crystals. Deliquescent. | Color: Greenish-black to violet. |
| Odor: Odorless. | Taste No information available. | Formula: CrCl ₃ •6H ₂ O |
| Molecular/Formula weight (g/mole): 266.45 | Flammability: No information available | Flashpoint (°C/°F): No information available. |
| Flash Point Tested according to: Not available | Autoignition Temperature (°C/°F): No information available | Lower Explosion Limit (%): No information available |
| Upper Explosion Limit (%): No information available | Melting point/range(°C/°F): 83°C/181.4°F | Decomposition temperature(°C/°F): No information available |
| Boiling point/range(°C/°F): No information available | Bulk density: No information available | Density (g/cm³): 1.76 |
| Specific gravity: No information available | pH: No information available | Vapor pressure @ 20°C (kPa): No information available |
| Evaporation rate: No information available | Vapor density: No information available | VOC content (g/L): No information available |
| Odor threshold (ppm): No information available | Partition coefficient (n-octanol/water): | |

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No information available

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Easily soluble in cold water
Easily soluble in hot water
Insoluble in diethyl ether
Partially soluble in acetone
Soluble in Alcohol
Solubility in water: 58g/100ml of cold water

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents

Chemical stability

Stability: Hygroscopic. Stable at normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Incompatible materials. Exposure to moisture.

Incompatible Materials: Oxidizing agents

Hazardous decomposition products: No information available.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Inhalation.

Acute Toxicity

Component Information

Chromic Chloride, hexahydrate

CAS-No. | 10060-12-5

LD50/oral/rat = 1790 mg/kg Oral LD50 Rat
LD50/oral/mouse = 2.39 g/kg Oral LD50 Mouse
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

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LD50/oral/rat =
VALUE- Acute Tox Oral = 1790 mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 2390 mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation. May cause allergic skin reaction.

Eye Contact: Causes serious eye irritation. May cause conjunctivitis. May cause corneal opacity.

Inhalation Irritating to respiratory system. May cause irritation of respiratory tract. Symptoms may include coughing and wheezing. May cause delayed pulmonary edema.

Ingestion Harmful if swallowed. Causes digestive (gastrointestinal) tract irritation. Ingestion may cause nausea, vomiting, diarrhea.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Skin: Sensitizer. May cause allergic skin reaction (allergic contact dermatitis). Chronic exposure may affect the kidneys and cause kidney damage.

Sensitization: May cause sensitization by skin contact.

Mutagenic Effects: May affect genetic material based on animal test data
DNA Damage - hamster lung
Sister Chromatid Exchange - hamster fibroblast; hamster lung
Cytogenic Analysis: human lymphocyte

Carcinogenic effects: Not considered carcinogenic.

| Components | CAS-No. | IARC | ACGIH - Carcinogens | NTP | OSHA HCS - Carcinogens | Australia - Notifiable Carcinogenic Substances | Australia - Prohibited Carcinogenic Substances |
|-------------------------------|------------|--|---|------------|------------------------|--|--|
| Chromic Chloride, hexahydrate | 10060-12-5 | Group 3 - Not Classifiable as to its Carcinogenicity | A4 - Not Classifiable as a Human Carcinogen | Not listed | Not listed | Not listed | Not listed |

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | to Humans (Chromium (III) compounds) | (chromium (III) inorganic compounds) | | | | |
|--|--|--|--|--|--|--|--|

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure Respiratory system.

STOT - repeated exposure No information available.

Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

| Components | CAS-No. | RCRA - F Series Wastes | RCRA - K Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|----------------------------------|------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Chromic Chloride, hexahydrate | 10060-12-5 | None | None | None | None |

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated

Proper Shipping Name: No information available

Hazard Class: No information available

Product code: C1344

Product name: CHROMIC
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Subsidiary Class No information available
Packing group: No information available
Emergency Response Guide Number No information available
Marine Pollutant No data available
DOT RQ (lbs): No information available
Special Provisions No Information available
Symbol(s): No information available
Description: No information available

TDG (Canada)

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Marine Pollutant No Information available
Description: No information available

ADR

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available

IMO / IMDG

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Marine Pollutant No information available

RID

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available

ICAO

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available

IATA

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
ERG Code: No information available
Special Provisions No information available

15. REGULATORY INFORMATION

International Inventories

| Components | CAS-No. | U.S. TSCA | KOREA KECL | Philippines (PICCS) | Japan ENCS | CHINA | Australia (AICS) | EINECS-No. |
|-------------------------------|------------|------------|-------------|---------------------|-----------------|---------|------------------|-------------|
| Chromic Chloride, hexahydrate | 10060-12-5 | Not Listed | Not present | Present | Present (1)-208 | Present | Present | Not present |

U.S. Regulations

Chromic Chloride, hexahydrate

New Jersey RTK Hazardous Substance List: sn 2245 (chromium compounds)

New Jersey (EHS) List: sn 2245 500 lb. TPQ (chromium compounds)

New Jersey - Discharge Prevention - List of Hazardous Substances: Present (chromium compounds)

Pennsylvania RTK: Environmental Hazard (chromium compounds)

Pennsylvania RTK - Environmental Hazard List Present (chromium compounds)

Minnesota - Hazardous Substance List: Present (as Cr - chromium (III) compounds)

Louisiana Reportable Quantity List for Pollutants: 100 lb RQ (chromium compounds)

California Directors List of Hazardous Substances: Present (chromium compounds)

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

| Components | CAS-No. | Carcinogen | Developmental Toxicity | Male Reproductive Toxicity | Female Reproductive Toxicity: |
|-------------------------------|------------|------------|------------------------|----------------------------|-------------------------------|
| Chromic Chloride, hexahydrate | 10060-12-5 | Not Listed | Not Listed | Not Listed | Not Listed |

CERCLA/SARA

| Components | CAS-No. | CERCLA - Hazardous Substances and their Reportable Quantities | Section 302 Extremely Hazardous Substances and TPQs | Section 302 Extremely Hazardous Substances and RQs | Section 313 - Chemical Category | Section 313 - Reporting de minimis |
|-------------------------------|------------|---|---|--|---------------------------------|------------------------------------|
| Chromic Chloride, hexahydrate | 10060-12-5 | None | None | None | Chromium (III) Compounds | 1% |

U.S. TSCA

| Components | CAS-No. | TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS) | TSCA 8(d) -Health and Safety Reporting |
|-------------------------------|------------|---|--|
| Chromic Chloride, hexahydrate | 10060-12-5 | Not Applicable | Not Applicable |

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Not a dangerous product according to HPR classification criteria.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

Non-controlled

Product code: C1344

Product name: CHROMIC CHLORIDE, HEXAHYDRATE, USP

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Components

Chromic Chloride, hexahydrate

WHMIS 1988

Uncontrolled product according to WHMIS classification criteria

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

| Components | WHMIS Ingredient Disclosure List - |
|-------------------------------|------------------------------------|
| Chromic Chloride, hexahydrate | 1% (chromium (III) compounds) |

Inventory

| Components | CAS-No. | Canada (DSL) | Canada (NDSL) |
|-------------------------------|------------|--------------|---------------|
| Chromic Chloride, hexahydrate | 10060-12-5 | Not Listed | Not Listed |

| Components | CAS-No. | CEPA Schedule I - Toxic Substances |
|-------------------------------|------------|---|
| Chromic Chloride, hexahydrate | 10060-12-5 | Not listed |
| Components | CAS-No. | CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting |
| Chromic Chloride, hexahydrate | 10060-12-5 | Not listed |

EU Classification**EU GHS - SV - CLP 1272/2008**

| Components | CAS-No. | EU GHS - SV - CLP (1272/2008) |
|-------------------------------|------------|-------------------------------|
| Chromic Chloride, hexahydrate | 10060-12-5 | |

EU - CLP (1272/2008)**R-phrase(s)**

R22 - Harmful if swallowed.

R36 - Irritating to eyes.

R43 - May cause sensitization by skin contact.

S -phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S24 - Avoid contact with skin.

S37 - Wear suitable gloves.

S46 - If swallowed, seek medical advice immediately and show this container or label.

| Components | CAS-No. | Classification | Concentration Limits: | Safety Phrases |
|-------------------------------|------------|----------------|-----------------------|----------------|
| Chromic Chloride, hexahydrate | 10060-12-5 | | No information | |

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Xn - Harmful.

Xi - Irritant.

Xn



Xi



16. OTHER INFORMATION

Preparation Date: 05/05/2015
Revision Date: 02/28/2018
Prepared by: Sonia Owen

Disclaimer: All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet