

# SAFETY DATA SHEET

**Creation Date** 29-Sep-2009

**Revision Date** 08-Apr-2022

**Revision Number** 3

## 1. Identification

**Product Name** Chromium(III) chloride hexahydrate

**Cat No. :** C2920, C2925

**CAS-No** 10060-12-5  
**Synonyms** Chromic chloride hexahydrate

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.  
**Details of the supplier of the safety data sheet**

### **Company**

Lab Alley LLC  
22111 Highway 71 West, Suite 601  
Spicewood, Texas 78669  
Tel.: 512-668-9918

### **Emergency Telephone Number**

Infotrac: 800-535-5053

## 2. Hazard(s) identification

### **Classification**

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

|                     |            |
|---------------------|------------|
| Corrosive to metals | Category 1 |
| Acute oral toxicity | Category 4 |
| Skin Sensitization  | Category 1 |

### **Label Elements**

#### **Signal Word**

Warning

#### **Hazard Statements**

May be corrosive to metals  
Harmful if swallowed  
May cause an allergic skin reaction

**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  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves  
 Keep only in original container

**Skin**

IF ON SKIN: Wash with plenty of soap and water  
 If skin irritation or rash occurs: Get medical advice/attention  
 Wash contaminated clothing before reuse

**Ingestion**

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth

**Spills**

Absorb spillage to prevent material damage

**Storage**

Store in corrosive resistant polypropylene container with a resistant inliner

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Toxic to aquatic life with long lasting effects

### 3. Composition/Information on Ingredients

| Component                           | CAS-No     | Weight % |
|-------------------------------------|------------|----------|
| Chromium (III) Chloride Hexahydrate | 10060-12-5 | >95      |
| Chromic chloride                    | 10025-73-7 | -        |

### 4. First-aid measures

|  |  |
|--|--|
| <b>General Advice</b>                      | If symptoms persist, call a physician.   |
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.  |
| <b>Skin Contact</b>                        | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.  |
| <b>Inhalation</b>                          | Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.   |
| <b>Ingestion</b>                           | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.  |
| <b>Most important symptoms and effects</b> | May cause allergic skin reaction. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, |

**Notes to Physician** lightheadedness, chest pain, muscle pain or flushing  
Treat symptomatically

## 5. Fire-fighting measures

**Suitable Extinguishing Media** CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

**Unsuitable Extinguishing Media** No information available

**Flash Point** No information available  
**Method -** No information available

**Autoignition Temperature**

**Explosion Limits**

**Upper** No data available  
**Lower** No data available  
**Sensitivity to Mechanical Impact** No information available  
**Sensitivity to Static Discharge** No information available

**Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**

Hydrogen chloride gas.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

|                    |                          |                         |                                |
|--------------------|--------------------------|-------------------------|--------------------------------|
| <b>Health</b><br>2 | <b>Flammability</b><br>0 | <b>Instability</b><br>1 | <b>Physical hazards</b><br>N/A |
|--------------------|--------------------------|-------------------------|--------------------------------|

## 6. Accidental release measures

**Personal Precautions** Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

**Environmental Precautions** Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

## 7. Handling and storage

**Handling** Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Ensure adequate ventilation. Avoid ingestion and inhalation.

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Store under an inert atmosphere. Protect from moisture.

## 8. Exposure controls / personal protection

**Exposure Guidelines**

| Component                           | ACGIH TLV | OSHA PEL                             | NIOSH IDLH   | Mexico OEL (TWA)           |
|-------------------------------------|-----------|--------------------------------------|--|----------------------------|
| Chromium (III) Chloride Hexahydrate |           | (Vacated) TWA: 0.5 mg/m <sup>3</sup> | IDLH: 25 mg/m <sup>3</sup><br>TWA: 0.5 mg/m <sup>3</sup> | TWA: 0.5 mg/m <sup>3</sup> |
| Chromic chloride                    |           | (Vacated) TWA: 0.5 mg/m <sup>3</sup> | IDLH: 25 mg/m <sup>3</sup><br>TWA: 0.5 mg/m <sup>3</sup> | TWA: 0.5 mg/m <sup>3</sup> |

*Legend*

ACGIH - American Conference of Governmental Industrial Hygienists  
 OSHA - Occupational Safety and Health Administration  
 NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures** Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protective Equipment

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

|   |  |
|---|--|
| <b>Physical State</b>                         | Solid                                  |
| <b>Appearance</b>                             | Dark green                             |
| <b>Odor</b>                                   | Odorless                               |
| <b>Odor Threshold</b>                         | No information available               |
| <b>pH</b>                                     | 2-3 5% aq.sol                          |
| <b>Melting Point/Range</b>                    | 83 °C / 181.4 °F                       |
| <b>Boiling Point/Range</b>                    | No information available               |
| <b>Flash Point</b>                            | No information available               |
| <b>Evaporation Rate</b>                       | Not applicable                         |
| <b>Flammability (solid,gas)</b>               | No information available               |
| <b>Flammability or explosive limits</b>       |  |
| <b>Upper</b>                                  | No data available                      |
| <b>Lower</b>                                  | No data available                      |
| <b>Vapor Pressure</b>                         | No information available               |
| <b>Vapor Density</b>                          | Not applicable                         |
| <b>Specific Gravity</b>                       | No information available               |
| <b>Solubility</b>                             | Soluble in water                       |
| <b>Partition coefficient; n-octanol/water</b> | No data available                      |
| <b>Autoignition Temperature</b>               |  |
| <b>Decomposition Temperature</b>              | No information available               |
| <b>Viscosity</b>                              | Not applicable                         |
| <b>Molecular Formula</b>                      | CrCl <sub>3</sub> · 6 H <sub>2</sub> O |
| <b>Molecular Weight</b>                       | 266.44                                 |

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Hygroscopic.

**Conditions to Avoid** Incompatible products. Excess heat. Avoid dust formation. Exposure to moist air or water.

**Incompatible Materials** Strong oxidizing agents

**Hazardous Decomposition Products** Hydrogen chloride gas

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

### Acute Toxicity

#### Product Information Component Information

| Component                           | LD50 Oral                 | LD50 Dermal       | LC50 Inhalation                    |
|-------------------------------------|---------------------------|-------------------|------------------------------------|
| Chromium (III) Chloride Hexahydrate | LD50 = 1790 mg/kg ( Rat ) | >2000 mg/kg (Rat) | Not listed                         |
| Chromic chloride                    | LD50 = 440 mg/kg (rat)    | Not listed        | 31.5 mg/m <sup>3</sup> /2h (Mouse) |

**Toxicologically Synergistic Products** No information available

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

**Irritation** No information available

**Sensitization** May cause sensitization by skin contact

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component                           | CAS-No     | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|-------------------------------------|------------|------------|------------|------------|------------|------------|
| Chromium (III) Chloride Hexahydrate | 10060-12-5 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Chromic chloride                    | 10025-73-7 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

### Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

| Component                           | Freshwater Algae | Freshwater Fish | Microtox   | Water Flea         |
|-------------------------------------|------------------|-----------------|------------|--------------------|
| Chromium (III) Chloride Hexahydrate | Not listed       | Not listed      | Not listed | EC50: 187 mg/L/24h |

**Persistence and Degradability** Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its water solubility.

### 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. Transport information

#### DOT

**UN-No** UN3260  
**Proper Shipping Name** Corrosive solid, acidic, inorganic, n.o.s.  
**Technical Name** Chromium (III) Chloride Hexahydrate ,Chromic chloride  
**Hazard Class** 8  
**Packing Group** III

#### TDG

**UN-No** UN3260  
**Proper Shipping Name** Corrosive solid, acidic, inorganic, n.o.s.  
**Hazard Class** 8  
**Packing Group** III

#### IATA

**UN-No** UN3260  
**Proper Shipping Name** Corrosive solid, acidic, inorganic, n.o.s.  
**Hazard Class** 8  
**Packing Group** III

#### IMDG/IMO

**UN-No** UN3260  
**Proper Shipping Name** Corrosive solid, acidic, inorganic, n.o.s.  
**Hazard Class** 8  
**Packing Group** III

### 15. Regulatory information

#### United States of America Inventory

| Component                           | CAS-No     | TSCA | TSCA Inventory notification - Active/Inactive | TSCA - EPA Regulatory Flags |
|-------------------------------------|------------|------|---|-----------------------------|
| Chromium (III) Chloride Hexahydrate | 10060-12-5 | -    | -   | -                           |
| Chromic chloride                    | 10025-73-7 | X    | ACTIVE  | -                           |

#### Legend:

**TSCA** - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA 12(b)** - Notices of Export Not applicable

#### International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

| Component                           | CAS-No     | DSL | NDSL | EINECS    | PICCS | ENCS | AICS | IECSC | KECL     |
|-------------------------------------|------------|-----|------|-----------|-------|------|------|-------|----------|
| Chromium (III) Chloride Hexahydrate | 10060-12-5 | -   | -    | -         | X     | -    | X    | X     | -        |
| Chromic chloride                    | 10025-73-7 | X   | -    | 233-038-3 | X     | X    | X    | X     | KE-06017 |

#### U.S. Federal Regulations

SARA 313

| Component                           | CAS-No     | Weight % | SARA 313 - Threshold Values % |
|-------------------------------------|------------|----------|-------------------------------|
| Chromium (III) Chloride Hexahydrate | 10060-12-5 | >95      | 1.0                           |
| Chromic chloride                    | 10025-73-7 | -        | 1.0                           |

**SARA 311/312 Hazard Categories** See section 2 for more information

**CWA (Clean Water Act)**

| Component                           | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|-------------------------------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Chromium (III) Chloride Hexahydrate | -                          | -                           | X                      | -                         |
| Chromic chloride                    | -                          | -                           | X                      | -                         |

**Clean Air Act**

| Component                           | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|-------------------------------------|-----------|-------------------------|-------------------------|
| Chromium (III) Chloride Hexahydrate | X         |                         | -                       |
| Chromic chloride                    | X         |                         | -                       |

**OSHA - Occupational Safety and Health Administration** Not applicable

**CERCLA** This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Component        | Hazardous Substances RQs | CERCLA EHS RQs |
|------------------|--------------------------|----------------|
| Chromic chloride | -                        | 1 lb           |

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Component                           | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------------------------|---------------|------------|--------------|----------|--------------|
| Chromium (III) Chloride Hexahydrate | -             | X          | X            | X        | X            |
| Chromic chloride                    | X             | X          | X            | X        | X            |

**U.S. Department of Transportation**

Reportable Quantity (RQ): N  
 DOT Marine Pollutant N  
 DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

## 16. Other information

**Prepared By** Regulatory Affairs  
 Lab Alley LLC  
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**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**