
1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|---|--|
| Product name | Chromium (III) chloride hexahydrate |
| CAS# | 10060-12-5 |
| Manufacturer | Sentury Reagents, Inc. 2515 Commerce Dr. Rock Hill, SC 29730 |
| Telephone | 803-327-6880 |
| Fax | 803-327-3872 |
| Emergency Phone # and International Account | PERS: 800-633-8253 011-801-629-0667 10613 |

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazardous

Target Organ Effect, Harmful by ingestion.

Target Organs

Liver, Kidney

GHS Classification

Acute Toxicity, Oral (Category 4)

GH3 Label elements, including precautionary statements

Pictogram



Signal word

WARNING

Hazard statement(s)

H302 Harmful if swallowed

Precautionary statement(s)

P264 Wash hands and face thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P312 If swallowed, call a poison control center/doctor if you feel unwell.
P330 Rinse out mouth
P501 Dispose contents/container in accordance to all applicable regulations.

HMIS Classification

| | |
|------------------------|---|
| Health hazard: | 1 |
| Chronic Health Hazard: | * |
| Flammability: | 0 |
| Physical hazards: | 1 |
| Personal protection: | E |

NFPA Rating

| | |
|--------------------|---|
| Health hazard: | 1 |
| Fire: | 0 |
| Reactivity Hazard: | 1 |

Potential Health Effects

| | |
|------------|---|
| Inhalation | May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. |
| Skin | Causes skin burns |
| Eyes | Causes eye burns |
| Ingestion | Toxic if swallowed |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| | |
|-------------------|---------------------------------------|
| FORMULA: | CrCl ₃ * 6H ₂ O |
| Molecular weight: | 266.45 g/mol |
| CAS | 10060-12-5 |
| EC-No. | 233-038-3 |

4. FIRST AID MEASURES**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

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

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

Further information

The product itself does not burn.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value | Control parameter | Basis |
|----------------------------------|---|-------|------------------------------|---|
| Hydrochloric acid | 7647-01-0 | C | 2 ppm | USA. ACGIH Threshold Limit Values (TLV) |
| Remarks | Upper Respiratory Tract irritation Not classifiable as a human carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories. | | | |
| | | C | 5 ppm 7 mg/m ³ | USA. Occupational Exposure Limits (OSHA) - Table Z-1 |
| | The value in mg/m ³ is approximate. Ceiling limit is to be determined from breathing-zone air samples. | | | |
| | | C | 5 ppm 7 mg/m ³ | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | | C | 5 ppm 7 mg/m ³ | USA. NIOSH Recommended Exposure Limits |
| | Often used in an aqueous solution. | | | |
| Chromium trichloride hexahydrate | 10060-12-5 | TWA | 0.5 mg/m ³ | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| | | TWA | 0.5 mg/m ³ | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | | TWA | 0.5 mg/m ³ | USA. Occupational Exposure Limits (OSHA) - Table Z-1 |
| | | TWA | 0.5 mg/m ³ | USA. ACGIH Threshold Limit Values (TLV) |

| | |
|---------|--|
| Remarks | Not classifiable as a human carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories. |
|---------|--|

Personal protective equipment

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand 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.

Eye protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and 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.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

| | |
|--------|-------|
| Form | Solid |
| Colour | Green |

Safety data

| | |
|--|----------------------------|
| pH | 2.4 at 5% solution |
| Melting point/freezing point | 83 oc (181 °F) |
| Boiling point | no data available |
| Flash point | not applicable |
| Ignition temperature | no data available |
| Autoignition temperature | no data available |
| Lower explosion limit | no data available |
| Upper explosion limit | no data available |
| Vapour pressure | no data available |
| Density | 1.76 g/ml at 25 oc (77 °F) |
| Water solubility | no data available |
| Partition coefficient: n-octanol/water | no data available |
| Relative vapour density | no data available |

| | |
|------------------|-------------------|
| Odour | no data available |
| Odour Threshold | no data available |
| Evaporation rate | no data available |

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Materials to avoid

Oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known. Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

LD50 Oral- rat- 1,790 mg/kg

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

Skin

corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Chromium trichloride hexahydrate)

3- Group 3: Not classifiable as to its carcinogenicity to humans (Chromium trichloride hexahydrate)

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

Reproductive toxicity- mouse - Intraperitoneal

Tumorigenic Effects: Other reproductive system tumors. No data available

Teratogenicity

Developmental Toxicity- mouse- Intraperitoneal
Effects on Embryo or Fetus: Cytological changes (including somatic cell genetic material). Specific Developmental Abnormalities: Central nervous system.

Specific target organ toxicity -single exposure (Globally Harmonized System)

No data available

Specific target organ toxicity -repeated exposure (Globally Harmonized System)

No data available

Aspiration hazard

No data available

Potential health effects

| | |
|------------|---|
| Inhalation | May be harmful if inhaled. May cause respiratory tract irritation |
| Ingestion | Harmful if swallowed. |
| Skin | Harmful if absorbed through skin. May cause skin irritation |
| Eyes | May cause eye irritation. |

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

No data available

Additional Information

RTECS: GB5450000

12. ECOLOGICAL INFORMATION

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

PBT and vPvB assessment

No data available

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not regulated, not dangerous goods

IMDG

Not regulated, not dangerous goods

IATA

Not regulated, not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards

Target Organ Effect, Harmful by ingestion

SARA 302 Components

None

SARA 313 Components

None

Massachusetts Right To Know Components

None

Pennsylvania Right To Know Components

None

New Jersey Right To Know Components

None

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sentury Reagents, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.