SAFETY DATA SHEETS

According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - Sixth revised edition

Version: 1.0

Creation Date: Aug 13, 2017

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1. Identification

1.1 GHS Product identifier

Product name	Chromic acetate

1.2 Other means of identification

Product number	-
Other names	chromium(lll) acetate

1.3 Recommended use of the chemical and restrictions on use

Identified uses	For industry use only. Intermediates,Process regulators
Uses advised against	no data available
Company	XiXisys.com
Address	XiXisys.com
Telephone	XiXisys.com
Fax	XiXisys.com
Emergency phone number	-
Service hours	Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

2. Hazard identification

2.1 Classification of the substance or mixture

Not classified.

2.2 GHS label elements, including precautionary statements

Pictogram(s)	No symbol.
Signal word	No signal word.
Hazard statement(s)	none
Precautionary statement(s)	
Prevention	none
Response	none
Storage	none
Disposal	none

2.3 Other hazards which do not result in classification

none

3. Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Chromic acetate	Chromic acetate	1066-30-4	none	100%

4. First-aid measures

4.1 Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

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

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

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

4.2 Most important symptoms/effects, acute and delayed

INHALATION: Irritating. It can produce ulcerations in the respiratory system, perforation of the nasal septum, pneumonitis and bronchial carcinoma. EYES: Irritation. SKIN: May cause dermatitis to exposed skin. Can produce ulcerations and sensitizing reactions. (USCG, 1999)

4.3 Indication of immediate medical attention and special treatment needed, if necessary

/SRP:/ Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. /Inorganic acids and related compounds/

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5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Respiratory protection from soluble chromic and chromous salts while fighting fires: self-contained breathing apparatus with a full facepiece operated in pressure-demand or other positive pressure mode. /Sol chromic & chromous salts/

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

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

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

Recommended Exposure Limit: 10-hour Time-Weighted Average: 0.5 mg/cu m. /Chromium(III) compounds (as Cr)/

Biological limit values

no data available

8.2 Appropriate engineering controls

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

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face 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 protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

no data available

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9. Physical and chemical properties

Physical state	grayish green to bluish green powder
Colour	Blue-green powder
Odour	Odorless
Melting point/ freezing point	>400°C (OECD Guideline 102 (Melting point / Melting Range) resp. EU A.1 (melting / freezing temperature))
Boiling point or initial boiling point and boiling range	117.1°C at 760 mmHg

Flammability	no data available
Lower and upper explosion limit / flammability limit	no data available
Flash point	40°C
Auto-ignition temperature	Not flammable (USCG, 1999)
Decomposition temperature	no data available
pH	Trivalent chromium compounds are amphoteric
Kinematic viscosity	no data available
Solubility	In water:slightly soluble
Partition coefficient n-octanol/water (log value)	log Kow = 0.2 at 22°C, pH 5 (OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method))
Vapour pressure	no data available
Density and/or relative density	1.28 g/cm3
Relative vapour density	no data available
Particle characteristics	no data available

10. Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

CHROMIC ACETATE gives aqueous solutions that are basic (neutralize acids). These neutralizations generate only a little heat. Neither a strong reducing agent nor oxidizing agent, but can serve as both.

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Combustible, organic, or other readily oxidizable materials (paper, wood, sulfur,

aluminum, plastics, etc.); corrosive to metals. /Chromic acid and chromates/

10.6 Hazardous decomposition products

When heated to decomp it emits acrid smoke and irritating fumes.

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11. Toxicological information

Acute toxicity

- Oral: LD50 Cartworth-Wistar Male Rat oral 2365 mg/kg/day chromium(III) acetate.
- Inhalation: no data available
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

WEIGHT OF EVIDENCE CHARACTERIZATION: Applying the criteria for evaluating the overall weight of evidence for carcinogenicity to humans outlined in EPA's guidelines for risk assessment (1986), trivalent chromium is most appropriately designated a Group D -- Not classified as to its human carcinogenicity. Using the Proposed Guidelines for Carcinogen Risk Assessment (1996), there are inadequate data to determine the potential carcinogenicity of trivalent chromium ... However, the classification of hexavalent chromium as a known human carcinogen raises a concern for the carcinogenic potential of trivalent chromium. HUMAN CARCINOGENICITY DATA: Occupational exposure to trivalent chromium and other chromium compounds by inhalation has been studied in the chromate manufacturing and ferrochromium industries; however, exposures all include mixed exposures to both Cr(III) and Cr(VI). Cr(VI) species is the likely etiological agent in reports of excess cancer risk in chromium workers.

Data addressing exposures to Cr(III) alone are not available and data are inadequate for an evaluation of human carcinogenic potential. ... ANIMAL CARCINOGENICITY DATA: The data from oral and inhalation exposures of animals to trivalent chromium do not support documentation of the carcinogenicity of trivalent chromium. IARC concluded that animal data are inadequate for the evaluation of the carcinogenicity of Cr(III) compounds. Furthermore, although there is sufficient evidence of respiratory carcinogenicity associated with exposure to chromium, the relative contribution of Cr(III), Cr(VI), metallic chromium, or soluble versus insoluble chromium to carcinogenicity cannot be elucidated... /Chromium (III), insoluble salts/

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

12. Ecological information

12.1 Toxicity

- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

12.2 Persistence and degradability

Using OECD Guideline 301A (new version) (Ready Biodegradability: DOC Die Away Test) with an adapted activated sludge inoculum, chromium (III) acetate (at 40 mg/L) was found to be readily biodegradable with 33.8, 84.5, 89.3 and 91.8% degradation after 1, 3 ,7 and 9 days of incubation, respectively(1).

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

Using OECD Guideline 121 (Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC)), chromium (III) acetate was estimated to have a log Koc of <1.5 (Koc of 31.6)(1). According to a classification scheme(2), this estimated Koc value suggests that chromium (III) acetate is expected to have very high mobility in soil.

12.5 Other adverse effects

no data available

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13. Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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14. Transport information

14.1 UN Number

ADR/RID: UN9101 IMDG: UN9101 IATA: UN9101

14.2 UN Proper Shipping Name

ADR/RID: unknown
IMDG: unknown
IATA: unknown

14.3 Transport hazard class(es)

ADR/RID: unknown IMDG: unknown IATA: unknown

14.4 Packing group, if applicable

ADR/RID: unknown IMDG: unknown IATA: unknown

14.5 Environmental hazards

ADR/RID: no IMDG: no IATA: no

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

15. Regulatory information

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

Chemical name	Common names and synonyms	CAS number	EC number
Chromic acetate	Chromic acetate	1066-30-4	none
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.

16. Other information

Information on revision

Creation Date	Aug 13, 2017
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Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
- Germany GESTIS-database on hazard substance, website:

http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

- ECHA - European Chemicals Agency, website: https://echa.europa.eu/
