

Safety Data Sheet
according to 1907/2006/EC, Article 31

Revision: 24.08.2010

Printing date 24.08.2010

1 Identification of substance**Product details**

Trade name

Chromium(II) chloride

Stock number:

L14342

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
Benzstrasse 3
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.com

Informing department:

Product safety department.

Emergency information:

Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240**2 Hazards identification**

Hazard designation:



C Corrosive

Information pertaining to particular dangers for man and environment

R 22 Harmful if swallowed.
R 34 Causes burns.

GHS label elements

**Danger**

H314 - Causes severe skin burns and eye damage.

**Warning**

H302 - Harmful if swallowed.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

Prevention:

Response:

3 Composition/information on ingredients

Chemical characterization:

Chromium(II) chloride (CAS# 10049-05-5)

Designation: (CAS#)

4 First aid measures

General information

Instantly remove any clothing soiled by the product. Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After inhalation

Seek immediate medical advice.

After skin contact

Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.

After swallowing

Rinse opened eye for several minutes under running water. Then consult doctor.

Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents

Use fire fighting measures that suit the environment.

Special hazards caused by the material, its products of combustion or flue gases:

Can be released in case of fire:

Toxic metal oxide smoke

Hydrogen chloride (HCl)

Wear self-contained breathing apparatus.

Wear full protective suit.

Protective equipment:

6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Ensure adequate ventilation

Measures for cleaning/collecting:

Do not allow material to be released to the environment without proper governmental permits.

Use neutralizing agent.

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

Additional information:

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

7 Handling and storage

Handling

Information for safe handling:

Handle under dry protective gas.

Keep containers tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

The product is not flammable

Storage

Requirements to be met by storerooms and containers:

No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Store away from air.

Store away from water.

Further information about storage conditions:

Store under dry inert gas.

This product is moisture sensitive.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Protect from humidity and keep away from water.

Store in a locked cabinet or with access restricted to technical experts or their assistants.

This product is air sensitive.

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8 Exposure controls and personal protection**Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with critical values that require monitoring at the workplace:

Chromium (III) compounds, as Cr
mg/m³

ACGIH TLV	0.5; Not classified as a human carcinogen
Belgium TWA	0.5
Denmark TWA	0.5
Finland TWA	0.01
France VME	0.5
Japan OEL	0.5
Korea TLV	0.5
Netherlands MAC-TGG	0.5
Norway TWA	0.5
Poland TWA	0.5
Sweden NGV	0.5
United Kingdom TWA	0.5
USA PEL	1.0

Chromium (II) compounds, as Cr
mg/m³

Belgium TWA	0.5
Denmark TWA	0.5
Finland TWA	0.01
France TWA	0.5
Ireland TWA	0.5
Sweden TWA	0.5
United Kingdom TWA	0.5
USA PEL	0.5

Additional information:

No data

Personal protective equipment**General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.
Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.

Breathing equipment:

Use breathing protection with high concentrations.

Protection of hands:

Check protective gloves prior to each use for their proper condition.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Eye protection:

Face protection
Safety glasses
Tightly sealed safety glasses.
Full face protection

Body protection:

Protective work clothing.

9 Physical and chemical properties:**General Information**

Form:	Powder
Colour:	Grey
Smell:	Odourless

Change in condition

Melting point/Melting range:	824°C
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined

Flash point: Not applicable**Ignition temperature:** Not determined**Decomposition temperature:** Not determined**Danger of explosion:** Product is not explosive.**Critical values for explosion:**

Lower:	Not determined
Upper:	Not determined

Steam pressure: Not determined**Density at 20°C** 2.878 g/cm³**Solubility in / Miscibility with Water:** Soluble**10 Stability and reactivity****Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

Materials to be avoided:

Water/moisture
Oxidizing agents
Air

Dangerous reactions:

No dangerous reactions known

Dangerous products of decomposition:

Toxic metal oxide smoke
Hydrogen chloride (HCl)

11 Toxicological information**Acute toxicity:****LD/LC50 values that are relevant for classification:**

Oral LD50 1870 mg/kg (rat) (RTECS)

Primary irritant effect:

on the skin:	Corrosive effect on skin and mucous membranes.
on the eye:	Strong corrosive effect.
Sensitization:	No sensitizing effect known.

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Trade name Chromium(II) chloride**Additional toxicological information:**

(Contd. of page 2)

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
EPA-D: Not classifiable as to human carcinogenicity: inadequate human and animal evidence of carcinogenicity or no data are available.
IARC-3: Not classifiable as to carcinogenicity to humans.
ACGIH A4: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals.

12 Ecological information:**Additional ecological information:****General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations**Product:****Recommendation**

Hand over to disposers of hazardous waste.
Must be specially treated under adherence to official regulations.
Consult state, local or national regulations for proper disposal.

Uncleaned packagings:**Recommendation:**

Disposal must be made according to official regulations.

14 Transport information**Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**

ADR/RID-GGVS/E Class: 8 (C2) Corrosive substances.
Kemler Number: 80
UN-Number: 3260
Packaging group: III
Label: 8
Designation of goods: 3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
Limited quantities (LQ): LQ24
Transport category: 3
Tunnel restriction code: E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 8
UN Number: 3260
Label: 8
Packaging group: III
Marine pollutant: No
Segregation groups: Acids
Correct technical name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 8
UN/ID Number: 3260
Label: 8
Packaging group: III
Correct technical name: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

UN "Model Regulation":

UN3260, CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S., 8, III

15 Regulatory information**Designation according to EC guidelines:****Code letter and hazard designation of product:**

C Corrosive

Risk phrases:

22 Harmful if swallowed.
34 Causes burns.

Safety phrases:

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

National regulations**Information about limitation of use:**

Employment restrictions concerning young persons must be observed.
For use only by technically qualified individuals.

Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.

Contact: Zachariah Holt

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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