

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 13.07.2010

Revision: 13.07.2010

## 1 Identification of substance

### Product details

Trade name

**Chromium silicon monoxide**

Stock number:

35667

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.giftnotruf.uni-mainz.de Telefon: +49(0)6131/19240

## 2 Hazards identification

Hazard designation:



Xn Harmful

Information pertaining to particular dangers  
for man and environment  
GHS label elements

R 42/43 May cause sensitisation by inhalation and skin contact.

**Danger**

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

### Warning

H317 - May cause an allergic skin reaction.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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

P285 In case of inadequate ventilation wear respiratory protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P321 Specific treatment (see on this label).

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Prevention:

Response:

Disposal:

## 3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

Chromium silicon monoxide (CAS# 37264-20-3), 100%

## 4 First aid measures

After inhalation

Supply fresh air and call for doctor for safety reasons.  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
Seek immediate medical advice.

After skin contact

Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.  
Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing

Seek immediate medical advice.

## 5 Fire fighting measures

Suitable extinguishing agents

Extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing  
agents

Water.

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

Can be released in case of fire:

Toxic metal oxide smoke

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

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

Measures for cleaning/collecting:

Dispose of contaminated material as waste according to item 13.

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:

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:

Keep ignition sources away - Do not smoke.

Storage

Requirements to be met by storerooms and  
containers:

No special requirements.

Information about storage in one common  
storage facility:Do not store together with oxidizing and acidic materials.  
Do not store together with alkalis (caustic solutions).Further information about storage  
conditions:Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.

## 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/m<sup>3</sup>

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

(Contd. on page 2)  
GB

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(Contd. of page 1)

Additional information:

Personal protective equipment

General protective and hygienic measures

Breathing equipment:

Eye protection:

Body protection:

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  
 No data

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.  
 Use breathing protection with high concentrations.  
 Safety glasses  
 Face protection  
 Protective work clothing.

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

Form: Granulate  
 Colour: Brown  
 Smell: Not determined

Change in condition

Melting point/Melting range: Not determined  
 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: Not determined

**10 Stability and reactivity**

Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.

Materials to be avoided:

Acids  
 Oxidizing agents  
 Bases

Dangerous reactions: No dangerous reactions known  
 Dangerous products of decomposition: Toxic metal oxide smoke

**11 Toxicological information**

Acute toxicity:

Primary irritant effect:  
 on the skin: Irritant for skin and mucous membranes.  
 on the eye: Irritant effect.

Sensitization:

Sensitization possible by inhalation.  
 Sensitization possible by skin contact.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.  
 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.  
 May cause sensitisation by inhalation and skin contact.

Sensitisation

**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

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

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: None

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: None  
 Marine pollutant: No

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: None

Transport/Additional information: Not dangerous according to the above specifications.

GB  
 (Contd. on page 3)

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(Contd. of page 2)

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

Xn Harmful

**Risk phrases:**

42/43 May cause sensitisation by inhalation and skin contact.

**Safety phrases:**

24 Avoid contact with skin.

37 Wear suitable gloves.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

60 This material and its container must be disposed of as hazardous waste.

**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)

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)

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