

# 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 carbide**

Stock number:

42313

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:



F Highly flammable

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

R 11 Highly flammable.

**Warning**

Prevention:

H228 - Flammable solid.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

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

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

Response:

## 3 Composition/information on ingredients

Chemical characterization:

Chromium carbide (CAS# 12105-81-6), 100%

Designation: (CAS#)

Identification number(s):

235-160-2

EINECS Number:

## 4 First aid measures

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.

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

CO2, sand, 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:

Contact with water releases flammable gases

Can be released in case of fire:

Toxic metal oxide smoke

Inflammable gases/vapours

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.

Ensure adequate ventilation

Keep away from ignition sources

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

Measures for environmental protection:

Ensure adequate ventilation.

Keep away from ignition sources.

Measures for cleaning/collecting:

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

Additional information:

## 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:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

Protect from humidity and keep away from water.

Storage

Requirements to be met by storerooms and  
containers:

Store in cool location.

Information about storage in one common  
storage facility:

Store away from water.

Do not store together with acids.

Further information about storage  
conditions:

Store under dry inert gas.

Protect from humidity and keep away from water.

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 (II) compounds, as Cr

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|                    |       |
|--------------------|-------|
|                    | 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   |
| No data            |       |

Additional information:

Personal protective equipment

General protective and hygienic measures

Breathing equipment:

Eye protection:

Body protection:

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:   | Powder    |
| Colour: | Grey      |
| Smell:  | Odourless |

**Change in condition**

|                                  |                |
|----------------------------------|----------------|
| Melting point/Melting range:     | Not determined |
| Boiling point/Boiling range:     | Not determined |
| Sublimation temperature / start: | Not determined |

Flash point: Not applicable

Inflammability (solid, gaseous): Highly flammable.

Ignition temperature: Not determined

Decomposition temperature: Not determined

**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:

Materials to be avoided:

No decomposition if used and stored according to specifications.  
 Water/moisture  
 Acids  
 Bases  
 Contact with water releases flammable gases  
 Methane  
 Toxic metal oxide smoke

Dangerous reactions:

Dangerous products of decomposition:

**11 Toxicological information**

Acute toxicity:

Primary irritant effect:

on the skin:

on the eye:

Sensitization:

Additional toxicological information:

Irritant for skin and mucous membranes.  
 Irritant effect.  
 No sensitizing effect known.  
 To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

**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:

Kemler Number:

UN-Number:

Packaging group:

Label

Designation of goods:

Limited quantities (LQ)

Transport category

4.1 (F3) Flammable solids, self-reactive substances and solid desensitised explosives.  
 40  
 3178  
 III  
 4.1  
 3178 FLAMMABLE SOLID, INORGANIC, N.O.S. (chromium carbide)  
 LQ9  
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Tunnel restriction code E

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: 4.1  
 UN Number: 3178  
 Label: 4.1  
 Packaging group: III  
 Marine pollutant: No  
 Correct technical name: FLAMMABLE SOLID, INORGANIC, N.O.S. (chromium carbide)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 4.1  
 UN/ID Number: 3178  
 Label: 4.1  
 Packaging group: III  
 Correct technical name: FLAMMABLE SOLID, INORGANIC, N.O.S. (chromium carbide)

UN "Model Regulation":  
 UN3178, FLAMMABLE SOLID, INORGANIC, N.O.S., 4.1, III

## 15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:



F Highly flammable

Risk phrases: 11 Highly flammable.

Safety phrases: 33 Take precautionary measures against static discharges.

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  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)