

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

Cobalt(II) 2-methoxyethoxide, 5% w/v in 2-methoxyethanol

Stock number:

42819

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:



T Toxic

Information pertaining to particular dangers for man and environment

R 60 May impair fertility.
 R 61 May cause harm to the unborn child.
 R 10 Flammable.
 R 20/21/22 Also harmful by inhalation, in contact with skin and if swallowed.

GHS label elements

**Danger**

H360FD - May damage fertility. May damage the unborn child.

**Warning**

H226 - Flammable liquid and vapour.

**Warning**

H302 - Harmful if swallowed.
 H312 - Harmful in contact with skin.
 H332 - Harmful if inhaled.
 P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P241 Use explosion-proof electrical/ventilating/lighting/equipment.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Prevention:

P405 Store locked up.

Response:

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

Storage:
Disposal:

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

Cobalt(II) 2-methoxyethoxide (CAS# 142600-61-1): 5%
2-Methoxyethanol (CAS# 109-86-4): 95%

Identification number(s):

Index number:

603-011-00-4

4 First aid measures

General information

Instantly remove any clothing soiled by the product.

After inhalation

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

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:

Can be released in case of fire:
 Carbon monoxide and carbon dioxide
 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
 Keep away from ignition sources
 Do not allow material to be released to the environment without proper governmental permits.
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Use neutralizing agent.

Measures for cleaning/collecting:

Dispose of contaminated material as waste according to item 13.
 Ensure adequate ventilation.
 Keep away from ignition sources.
 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.
 Open and handle container with care.

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.

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Storage Requirements to be met by storerooms and containers:
Information about storage in one common storage facility:

No special requirements.

Store away from oxidizing agents.
 Store away from water.
 Do not store together with acids.

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.

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:

2-Methoxyethanol (ethylene glycol monomethyl ether)
 ppm

ACGIH TLV	5 (skin)
Austria MAK	5 (skin)
Belgium TWA	5 (skin)
Denmark TWA	5 (skin)
Finland TWA	25; 40-STEL (skin)
France VME	5 (skin)
Germany MAK	5 (skin)
Hungary TWA	15 mg/m ³ ; 30 mg/m ³ -STEL (skin)
Japan OEL	5 (skin)
Korea TLV	5 (skin)
Netherlands MAC-TGG	5 (skin)
Norway TWA	5
Poland TWA	15 mg/m ³ ; 60 mg/m ³ -STEL
Russia TWA	5
Sweden NGV	5; 10-KTV (skin)
Switzerland MAK-W	5, 10-KZG-W (skin)
United Kingdom TWA	5 (skin)
USA PEL	25 (skin)

Cobalt, elemental & inorganic compounds, as Co

mg/m³

ACGIH TLV	0.02; Confirmed animal carcinogen
Austria	Carcinogen
Belgium TWA	0.05
Denmark TWA	0.05
Finland TWA	0.05 (skin)
Germany	Carcinogen
Hungary TWA	0.1; 0.2-STEL
Japan OEL	0.05; 2B-Carcinogen
Korea TLV	0.02; Confirmed animal carcinogen
Netherlands MAC-TGG	0.05
Norway TWA	0.05
Poland TWA	0.05; 0.2-STEL
Russia	0.5-STEL
Sweden NGV	0.05
Switzerland MAK-W	0.1; Carcinogen
United Kingdom TWA	0.1
USA PEL	0.1 (dust and fume)

No data

Additional information:

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.
 Store protective clothing separately.
 Avoid contact with the eyes and skin.
 Use breathing protection with high concentrations.
 Safety glasses
 Tightly sealed safety glasses.
 Full face protection
 Face protection
 Protective work clothing.

Breathing equipment:
Eye protection:

Body protection:

9 Physical and chemical properties:

General Information

Form: Liquid
Smell: Sweetish

Change in condition
Melting point/Melting range: Not determined
Boiling point/Boiling range: Not determined
Sublimation temperature / start: Not determined

Flash point: 46°C

Ignition temperature: Not determined

Decomposition temperature: Not determined

Critical values for explosion:
Lower: Not determined
Upper: Not determined

Steam pressure: Not determined

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Density Not determined

Solubility in / Miscibility with Water: Hydrolyzes

10 Stability and reactivityThermal decomposition / conditions to be avoided:
Materials to be avoided:No decomposition if used and stored according to specifications.
Oxidizing agents
Water/moisture
Oxygen
Acids

Dangerous reactions:

Reacts with strong oxidizing agents
Possible formation of peroxide
Carbon monoxide and carbon dioxide
Toxic metal oxide smoke

Dangerous products of decomposition:

11 Toxicological informationAcute toxicity:
Primary irritant effect:May cause irritation
May cause irritation
No sensitizing effect known.

on the skin:

on the eye:

Sensitization:

Other information (about experimental toxicology):

Additional toxicological information:

Reproductive effects have been observed on tests with laboratory animals.
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
Danger by skin resorption.
May impair fertility.
May cause harm to the unborn child.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.**12 Ecological information:**Additional ecological information:
General notes:Do not allow product to reach ground water, water bodies or sewage system.
Water hazard class 2 (Self-assessment): hazardous for water.
Danger to drinking water if even small quantities leak into soil.
Do not allow material to be released to the environment without proper governmental permits.**13 Disposal considerations**Product:
RecommendationConsult 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: 3 (F1) Flammable liquids.
Kemler Number: 30
UN-Number: 1188
Packaging group: III
Label: 3
Designation of goods: 1188 ETHYLENE GLYCOL MONOMETHYL ETHER
Limited quantities (LQ): LQ7
Transport category: 3
Tunnel restriction code: D/E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 3
UN Number: 1188
Label: 3
Packaging group: III
EMS Number: F-E, S-D
Marine pollutant: No
Correct technical name: ETHYLENE GLYCOL MONOMETHYL ETHER

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 3
UN/ID Number: 1188
Label: 3
Packaging group: III
Correct technical name: ETHYLENE GLYCOL MONOMETHYL ETHER

UN "Model Regulation":

UN1188, ETHYLENE GLYCOL MONOMETHYL ETHER, 3, III

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

T Toxic

Risk phrases:

60 May impair fertility.
 61 May cause harm to the unborn child.
 10 Flammable.
 20/21/22 Also harmful by inhalation, in contact with skin and if swallowed.

Safety phrases:

53 Avoid exposure - obtain special instructions before use.
 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:**

For use only by technically qualified individuals.
 Employment restrictions concerning young persons must be observed.
 Employment restrictions concerning women of child-bearing age must be observed.

Water hazard class:

Water hazard class 2 (Self-assessment): 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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