

# 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

**Yttrium(III) 2-methoxyethoxide, 5% w/v in 2-methoxyethanol**

Stock number:

41793

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.  
P201 Obtain special instructions before use.  
P308+P313 IF exposed or concerned: Get medical advice/attention.

Prevention:

Response:

## 3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

Yttrium(III) 2-methoxyethoxide (CAS# 115668-57-0): 5%  
2-Methoxyethanol (CAS# 109-86-4): 95%

## 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

CO<sub>2</sub>, 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  
Metal oxide

Protective equipment:

Wear self-contained breathing apparatus.  
Wear full protective suit.

## 6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

Measures for environmental protection:

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

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

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.

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 water.  
Do not store together with acids.(Contd. on page 2)  
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**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/m3; 30 mg/m3-STEL (skin)  
 Japan OEL 5 (skin)  
 Korea TLV 5 (skin)  
 Netherlands MAC-TGG 5 (skin)  
 Norway TWA 5  
 Poland TWA 15 mg/m3; 60 mg/m3-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)

Yttrium and compounds, as Y  
 mg/m3  
 ACGIH TLV 1  
 Austria MAK 1  
 Belgium TWA 1  
 Denmark TWA 1  
 Finland TWA 1  
 France VME 1  
 Germany TWA 5  
 Korea TLV 1  
 Netherlands MAC-TGG 1  
 Norway TWA 1  
 Poland TWA 1  
 Switzerland MAK-W 1  
 United Kingdom TWA 1; 3-STEL  
 OSHA PEL 1  
 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.  
 Face protection  
 Safety glasses  
 Tightly sealed safety glasses.  
 Full face protection  
 Protective work clothing.

**Breathing equipment:****Eye protection:****Body protection:****9 Physical and chemical properties:****General Information**

<b>Form:</b>	Liquid
<b>Colour:</b>	Colourless
<b>Smell:</b>	Sweetish
<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Not determined
<b>Boiling point/Boiling range:</b>	Not determined
<b>Sublimation temperature / start:</b>	Not determined
<b>Flash point:</b>	46°C (2-methoxyethanol)
<b>Ignition temperature:</b>	Not determined
<b>Decomposition temperature:</b>	Not determined
<b>Critical values for explosion:</b>	
<b>Lower:</b>	Not determined
<b>Upper:</b>	Not determined
<b>Steam pressure:</b>	Not determined
<b>Density</b>	Not determined
<b>Solubility in / Miscibility with Water:</b>	Hydrolyzes

**10 Stability and reactivity****Thermal decomposition / conditions to be avoided:****Materials to be avoided:**

No decomposition if used and stored according to specifications.  
 Oxidizing agents  
 Water/moisture

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**Dangerous reactions:**  
**Dangerous products of decomposition:**

Oxygen  
 Acids  
 Possible formation of peroxide  
 Carbon monoxide and carbon dioxide  
 Metal oxide

## 11 Toxicological information

**Acute toxicity:**  
**Primary irritant effect:**  
**on the skin:**  
**on the eye:**  
**Sensitization:**  
**Other information (about experimental toxicology):**

May cause irritation  
 May cause irritation  
 No sensitizing effect known.

**Additional toxicological information:**

Reproductive effects have been observed on tests with laboratory animals.  
 Mutagenic 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:**  
**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:** 3 (F1) Flammable liquids.  
**Kemler Number:** 38  
**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

## 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).

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**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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