

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.01.2015


Version number 23

Revision: 11.01.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** methanol
- **Article number:** 3400
- **CAS Number:**
67-56-1
- **EC number:**
200-659-6
- **Index number:**
603-001-00-X
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture :** For Laboratory, Research or Manufacturing use.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Avantor Performance Materials B.V.
P.O.Box 1
7400 AA Deventer
The Netherlands
Tel: (+31) (0)570 - 687500
Fax: (+31) (0)570 - 687574
E-mail : jtbaker.nl@avantormaterials.com
- **Informing department:**
E-mail : pawel.skiba@avantormaterials.com
Avantor Performance Materials Sales Office Tel.: +31(0) 570 687500
- **1.4 Emergency telephone number:**
Environment Health & Safety department
during normal opening times (8 am till 5.30 pm) tel: (+31)(0) 570 687500

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Flam. Liq. 2 H225 Highly flammable liquid and vapour.
Acute Tox. 3 H301 Toxic if swallowed.
Acute Tox. 3 H311 Toxic in contact with skin.
Acute Tox. 3 H331 Toxic if inhaled.
STOT SE 1 H370 Causes damage to organs.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
T; Toxic
R23/24/25-39/23/24/25: Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- F; Highly flammable
R11: Highly flammable.
- **Information concerning particular hazards for human and environment:** void
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**


GHS02 GHS06 GHS08
- **Signal word** *Danger*

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.01.2015

Version number 23

Revision: 11.01.2015

Trade name: methanol

(Contd. of page 1)

· **Hazard statements**

- H225 Highly flammable liquid and vapour.
- H301 Toxic if swallowed.
- H311 Toxic in contact with skin.
- H331 Toxic if inhaled.
- H370 Causes damage to organs.

· **Precautionary statements**

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.1 Chemical characterisation: Substances**

- **CAS No. Designation:**
67-56-1 methanol
- **Identification number(s):**
- **EC number:** 200-659-6
- **Index number:** 603-001-00-X

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information**

Instantly remove any clothing soiled by the product.
Remove breathing apparatus only after soiled clothing has been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After inhalation**

Supply fresh air or oxygen; call for doctor.
In case of unconsciousness bring patient into stable side position for transport.

· **After skin contact** Instantly wash with water and soap and rinse thoroughly.

· **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.

· **After swallowing** Do not induce vomiting; instantly call for medical help.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents**

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

· **For safety reasons unsuitable extinguishing agents** Water with a full water jet.

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

(Contd. on page 3)

Trade name: methanol

(Contd. of page 2)

- **5.3 Advice for firefighters**
- **Protective equipment:** Put on breathing apparatus.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Prevent material from reaching sewage system, holes and cellars.
Dilute with plenty of water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle container with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep breathing equipment ready.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Components with critical values that require monitoring at the workplace:**

67-56-1 methanol

WEL	Short-term value: 333 mg/m ³ , 250 ppm
	Long-term value: 266 mg/m ³ , 200 ppm
Sk	

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**

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

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.01.2015

Version number 23

Revision: 11.01.2015

Trade name: methanol

(Contd. of page 3)

Store protective clothing separately.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

· **Protection of hands:**

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **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.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Tightly sealed safety glasses.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Colour: Colourless

· Smell: Alcohol-like

· Odour threshold: Not determined.

· pH-value: Not determined.

· **Change in condition**

Melting point/Melting range: -98 °C

Boiling point/Boiling range: 64.7 °C

· Flash point: 11 °C

· Inflammability (solid, gaseous) Not applicable.

· Ignition temperature: 455 °C

· Decomposition temperature: Not determined.

· Self-inflammability: Not determined.

· Danger of explosion: Product is not explosive. However, formation of explosive air/steam mixtures is possible.

· **Critical values for explosion:**

Lower: 5.5 Vol %

Upper: 44 Vol %

· Steam pressure at 20 °C: 128 hPa

· Density at 20 °C 0.79 g/cm³

· Relative density Not determined.

· Vapour density Not determined.

· Evaporation rate Not determined.

· **Solubility in / Miscibility with**

Water: Fully miscible

· Partition coefficient (n-octanol/water): Not determined.

· **Viscosity:**

dynamic: Not determined.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.01.2015

Version number 23

Revision: 11.01.2015

Trade name: methanol

(Contd. of page 4)

- | | |
|--------------------------------|--|
| kinematic: | Not determined. |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Heat, boiling temperatures.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
Toxic if swallowed.
Toxic if inhaled.
Toxic in contact with skin.
- **LD/LC50 values that are relevant for classification:**

Oral	LD50	5628 mg/kg (rat)
	LDLo	143 mg/kg (Human)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitisation:** No sensitizing effect known.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

EC5 / 16h	6600 mg/l (<i>Pseudomonas putida</i> .)
EC5 / 72h	>10000 mg/l (<i>Entosiphon sulcatum</i>)
EC50	31100 mg/l (<i>Chlorella sp.</i>)
EC50/24h	10000 mg/l (<i>daphnia magna</i>)
EC50/48h	>10000 mg/l (<i>daphnia magna</i>)
	18756 mg/l (<i>Protozoa</i>)
IC5 / 8 d	8000 mg/l ((alg) <i>Scenedesmus quadricauda</i>)
LC50/96h	13680 ppm (<i>Trout, rainbow (Salmo gairdnerii)</i>)
	28100 mg/l (<i>Fathead minnow (Pimephales promelas)</i>)
TLM fishes / 96h:	>1000 mg/l (<i>Pisces</i>)
TLM fishes/48h	8000 mg/l (<i>Salvelinus Sp.</i>)
TLMwaterorganism/24h	10000 mg/l (<i>Artemia Salina</i>)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

(Contd. on page 6)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.01.2015

Version number 23

Revision: 11.01.2015

Trade name: methanol



(Contd. of page 5)

- **Additional ecological information:**
- **General notes:**
Water hazard class (D) 1 (Assessment by list): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

- **14.1 UN-Number**
· **ADR, IMDG, IATA** UN1230
- **14.2 UN proper shipping name**
· **ADR** 1230 METHANOL
· **IMDG, IATA** METHANOL
- **14.3 Transport hazard class(es)**
· **ADR**

 - **Class** 3 (FT1) Flammable liquids.
 - **Label** 3+6.1
- **IMDG, IATA**

 - **Class** 3 Flammable liquids.
 - **Label** 3+6.1
- **14.4 Packing group**
· **ADR, IMDG, IATA** II
- **14.5 Environmental hazards:**
· **Marine pollutant:** No
- **14.6 Special precautions for user** Warning: Flammable liquids.
- **Kemler Number:** 336
- **EMS Number:** F-E,S-D

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

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Version number 23

Revision: 11.01.2015

Trade name: methanol

(Contd. of page 6)

- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Transport/Additional information:**
- **ADR**
- **Limited quantities (LQ)** 1L
- **Excepted quantities (EQ)** Code: E2
- Maximum net quantity per inner packaging: 30 ml
- Maximum net quantity per outer packaging: 500 ml
- **Transport category** 2
- **Tunnel restriction code** D/E
- **IMDG**
- **Limited quantities (LQ)** 1L
- **Excepted quantities (EQ)** Code: E2
- Maximum net quantity per inner packaging: 30 ml
- Maximum net quantity per outer packaging: 500 ml
- **UN "Model Regulation":** UN1230, METHANOL, 3 (6.1), II

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02 GHS06 GHS08

- **Signal word** *Danger*
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H331 Toxic if inhaled.
H370 Causes damage to organs.
- **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing data specification sheet:** EHS
- **Contact:** Paweł Skiba

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.01.2015

Version number 23

Revision: 11.01.2015

Trade name: methanol

(Contd. of page 7)

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3

STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1

· * Data compared to the previous version altered.

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