

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

Printing date 03.05.2018

Version number 3

Revision: 03.05.2018

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

**1.1 Product identifier**

· Trade name: Methanol

· Article number: 45631

· CAS Number:

67-56-1

· EC number:

200-659-6

· Index number:

603-001-00-X

· Registration number 01-2119433307-44

· 1.2 Relevant identified uses of the substance or mixture and uses advised against

· Process category PROC15 Use as laboratory reagent

· Application of the substance / the mixture Laboratory chemicals

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

SERVA Electrophoresis GmbH

Carl-Benz-Str. 7

D-69115 Heidelberg

Tel.: +49 6221 13840-0

FAX: +49 6221 13840-10

msds.info@serva.de

· Information department: Product Safety department Tel.: +49 6221 13840-35

· 1.4 Emergency telephone number:

Medical Emergency Information in case of poisoning:

Poison Information Center Mainz - Phone: +49 (0) 6131 19240

(advisory service in German or English language)



**SECTION 2: Hazards identification**

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008



GHS02

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS06

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



GHS08

STOT SE 1 H370 Causes damage to organs.

· 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

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- **Signal word** *Danger*
- **Hazard statements**
  - H225 *Highly flammable liquid and vapour.*
  - H301+H311+H331 *Toxic if swallowed, in contact with skin or if inhaled.*
  - H370 *Causes damage to organs.*
- **Precautionary statements**
  - P260 *Do not breathe dust/fume/gas/mist/vapours/spray.*
  - P264 *Wash thoroughly after handling.*
  - P280 *Wear protective gloves/protective clothing/eye protection/face protection.*
  - P301+P310 *IF SWALLOWED: Immediately call a POISON CENTER/ doctor.*
  - P303+P361+P353 *IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*
  - P304+P340 *IF INHALED: Remove person to fresh air and keep comfortable for breathing.*
  - P308+P311 *IF exposed or concerned: Call a POISON CENTER/doctor.*
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.

**SECTION 3: Composition/information on ingredients**

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description:**  
67-56-1 methanol
- **Identification number(s):**
- **EC number:** 200-659-6
- **Index number:** 603-001-00-X
- **Description:**
- **Empirical formula:** C H<sub>4</sub> O
- **MW:** 32.00

**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
- **General information** *Remove contaminated clothing.*
- **After inhalation** *Supply fresh air; consult doctor in case of complaints.*
- **After skin contact** *Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact**  
*Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing. Consult ophthalmologist In case of complaints.*
- **After swallowing**  
*Rinse out mouth and then drink plenty of water.*  
*Induce vomiting, if person is conscious. Seek medical help.*
- **4.2 Most important symptoms and effects, both acute and delayed**  
Nausea  
Dizziness  
Headache
- **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**  
*CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*

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- **5.2 Special hazards arising from the substance or mixture**  
Flammable substance, vapours are heavier than air and spread over the floor. Accumulation in low areas is possible.  
Formation of dangerous gases or vapours is possible in case of fire.  
Vapours can form explosive mixtures with air.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective clothing.  
Ensure adequate ventilation  
Keep away from ignition sources  
Do not inhale vapours.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.
- **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 disposal information.

**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Do not store together with oxidizing materials.
- **Further information about storage conditions:**  
Store under lock and key and with access restricted to technical experts or their assistants only.  
Keep receptacle tightly sealed.  
Store containers in a dry and well-ventilated place.
- **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **DNELs**  
Worker: acute / chronic - systemic effects, dermal: 40 mg/kg (bw/day)  
workers: acute - systemic effects, dermal: 40 mg/kg (bw/day)

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workers: acute / chronic - systemic/ local effects, inhalative: 260 mg/m<sup>3</sup>  
workers: long term exposure-systemic/ local effects, inhalative: 260 mg/m<sup>3</sup>

- **PNECs**

PNEC fresh water: 30 mg/l  
PNEC fresh water sediment: 25,05 mg/kg  
PNEC marine water: 3 mg/l  
PNEC Soil: 16,24 mg/kg  
PNEC sewage plant: 123 mg/l

- **Additional information:** The lists that were valid during the creation were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the eyes and skin.

- **Breathing equipment:**

Short term filter device:  
Filter AX.

- **Protection of hands:**

Neoprene gloves  
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.

- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Butyl rubber, BR  
Fluorocarbon rubber (Viton)  
Chloroprene rubber, CR

- **Eye protection:** Tightly sealed goggles.

- **Body protection:** Protective work clothing.

**SECTION 9: Physical and chemical properties**

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

- **General Information**

- **Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic

- **Change in condition**

<b>Melting point/freezing point:</b>	- 98 °C
<b>Initial boiling point and boiling range:</b>	65 °C

- **Flash point:** 11 °C

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· <b>Ignition temperature:</b>	440 °C
· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b>	
<b>Lower:</b>	5.5 Vol %
<b>Upper:</b>	44 Vol %
· <b>Vapour pressure at 20 °C:</b>	128 hPa
· <b>Density at 20 °C:</b>	0.79 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible
· <b>Partition coefficient: n-octanol/water:</b>	-0.77 log POW
· <b>9.2 Other information</b>	There are no more data available.

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant informations available
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**  
 Danger of explosion with:  
 Oxidizer, chrom (VI) - oxide, magnesium, halogenes, non-metal-oxides, chromo-sulfuric acid, nitric acid, perchloric acid, perchlorates, chlorates, hydrogen peroxide, hydrides  
 Reacts with acids, alkalis and oxidizing agents  
 Exothermic reactions with:  
 acid halides, acid anhydrides, acids, reducing agents  
 Liberates hazardous gases or vapours in contact with:  
 alkaline earth metals, alkaline metals
- **10.4 Conditions to avoid** Heating
- **10.5 Incompatible materials:**  
 different plastic materials  
 zinc alloys
- **10.6 Hazardous decomposition products:** Irritant gases/vapours

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity**  
 Toxic if swallowed, in contact with skin or if inhaled.

· **LD/LC50 values that are relevant for classification:**

**67-56-1 methanol**

Oral	LD50	5600 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)
	LC50/96h	10800 mg/l (Forelle)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.

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- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
Causes damage to organs.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Easily biodegradable
- **Other information:**  
COD (chemical oxygene demand):  
1420 mg/g
- **12.3 Bioaccumulative potential**  
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.
- **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 cleansing agent:** Water, if necessary with cleansing agents.

**SECTION 14: Transport information**

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1230
- **14.2 UN proper shipping name**
- **ADR** 1230 METHANOL
- **IMDG** METHANOL
- **IATA** Methanol

- **14.3 Transport hazard class(es)**

- **ADR, IMDG, IATA**



- **Class** 3 Flammable liquids.

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· <b>Label</b>	3+6.1
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b>	Warning: Flammable liquids. 336 F-E,S-D
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	D/E
· <b>UN "Model Regulation":</b>	UN1230, METHANOL, 3 (6.1), II

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction:** 3, 40

- **National regulations**

- **Technical instructions (air):**

Class	Share in %
I	80-100

- **Water hazard class:** Water hazard class 1 (Assessment by list): slightly hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing SDS:** Product safety department

- **Contact:** +49 6221 13840-35

- **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

PBT: persistent, bioaccumulative, toxic substance (REACH)

vPvB: very persistent, very bioaccumulative substance (REACH)

REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

CLP: Regulation on classification, labelling and packaging of substances and mixtures

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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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*PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Flammable liquids – Category 2**Acute Tox. 3: Acute toxicity – Category 3**STOT SE 1: Specific target organ toxicity (single exposure) – Category 1***· \* Data compared to the previous version altered.**

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