

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

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MIG·O·MAT®

## Methanol

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

#### 1.1. Product identifier

Trade name/designation:

Methanol

Other means of identification:

50.2501603 Methanol

50.2501605 Methanol, 5-litre -jerrican

50.2501607 Methanol, 2-litre -jerrican

50.2501609 Methanol, 1-litre-jerrican

50.2501617 Methanol, 10-litre-jerrican

CAS No.:

67-56-1

EC No.:

200-659-6

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

Use of the substance/mixture:

Agent to reduce the temperature of flames

Relevant identified uses:

Life cycle stage [LCS]

IS: Use at industrial sites

PW: Widespread use by professional workers

#### 1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

MIG-O-MAT Mikrofügetechnik GmbH

Werksstraße 20

57299 Burbach

Telephone: +49 (0) 2736 4154 0

Telefax: +49 (0) 2736 4154 99

E-mail: info@mig-o-mat.com

Website: www.mig-o-mat.com

E-mail (competent person): reach@tuev-sued.de

TÜV SÜD Industrie Service GmbH - Environmental Service REACH - Westendstraße 199 - 80686 Munich - Germany +49 (0) 89 5791 3031

#### 1.4. Emergency telephone number

Antipoison Center Munich , 24h: +49 (0) 89 19240

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]-:

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids ( <i>Flam. Liq. 2</i> )	H225: Highly flammable liquid and vapour.	Minimum classification.
Acute toxicity (oral) ( <i>Acute Tox. 3</i> )	H301: Toxic if swallowed.	Minimum classification.
Acute toxicity (dermal) ( <i>Acute Tox. 3</i> )	H311: Toxic in contact with skin.	Minimum classification.
Acute toxicity (inhalative) ( <i>Acute Tox. 3</i> )	H331: Toxic if inhaled.	Minimum classification.
STOT-single exposure ( <i>STOT SE 1</i> )	H370: Causes damage to organs. (...)	Minimum classification.

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### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



**GHS02**  
Flame



**GHS06**  
Skull and  
crossbones



**GHS08**  
Health hazard

Signal word: Danger

#### hazard statements for physical hazards

H225	Highly flammable liquid and vapour.
------	-------------------------------------

#### hazard statements for health hazards

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs. (eyes)

Supplemental Hazard information (EU): -

#### Precautionary statements Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241.3	Use explosion-proof electrical equipment.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.

#### Precautionary statements Response

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P310.1	Immediately call a POISON CENTER.
P361	Take off immediately all contaminated clothing.

#### Precautionary statements Storage

P405	Store locked up.
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#### Precautionary statements Disposal

P501.1	Dispose of contents/container to industrial incineration plant.
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### 2.3. Other hazards

**Adverse physicochemical effects:**

No information available.

**Adverse human health effects and symptoms:**

No information available.

**Adverse environmental effects:**

No information available.

**Other adverse effects:**

No information available.

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### SECTION 3: Composition / information on ingredients

#### 3.1. Substances

**Hazardous ingredients / Hazardous impurities / Stabilisers:**

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008- [CLP]	Concentration
CAS No.: 67-56-1 EC No.: 200-659-6	<b>methanol</b> Flam. Liq. 2, Acute Tox. 3, STOT SE 1  <b>Danger</b> H225-H301-H311-H331-H370	> 90 - < 100 Wt %

Full text of H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information:

If unconscious place in recovery position and seek medical advice.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### Following inhalation:

Remove casualty to fresh air and keep warm and at rest.

##### In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap.

##### After eye contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

##### After ingestion:

Rinse mouth thoroughly with water.

Let water be drunken in little sips (dilution effect).

Induce vomiting when the affected person is not unconscious.

##### Self-protection of the first aider:

No direct artificial respiration to be given by first aider. First aider: Pay attention to self-protection!

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms can occur only after several hours.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media:

Water, alcohol resistant foam, ABC-powder, Carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media:

Full water jet

#### 5.2. Special hazards arising from the substance or mixture

Carbon monoxide

The gas-air-mixture does have an explosion range at 20 °C and standard pressure (101,3 kPa).

##### Hazardous combustion products:

Carbon dioxide (CO<sub>2</sub>),

#### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

#### 5.4. Additional information

Move undamaged containers from immediate hazard area if it can be done safely.

Do not allow run-off from fire-fighting to enter drains or water courses.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

**Personal precautions:**

Use personal protection equipment.  
Ventilate affected area.

**Protective equipment:**

Use appropriate respiratory protection.

**Emergency procedures:**

Remove all sources of ignition. Remove persons to safety. Provide adequate ventilation.

##### 6.1.2. For emergency responders

**Personal protection equipment:**

Use appropriate respiratory protection.

#### 6.2. Environmental precautions

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

#### 6.3. Methods and material for containment and cleaning up

**For containment:**

Universal binder

**For cleaning up:**

Dilute with plenty of water.

**Other information:**

Treat the recovered material as prescribed in the section on waste disposal.

#### 6.4. Reference to other sections

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8

#### 6.5. Additional information

Clear spills immediately.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Protective measures**

**Advices on safe handling:**

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

All work processes must always be designed so that the following is excluded:

Inhalation of vapours or spray/mists

All work processes must always be designed so that the following is as low as possible:

Skin contact Eye contact

**Fire prevent measures:**

The product is: Highly flammable

Vapours can form explosive mixtures with air.

Provide earthing of containers, equipment, pumps and ventilation facilities.

Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.

**Environmental precautions:**

Shafts and sewers must be protected from entry of the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Technical measures and storage conditions:**

Ensure adequate ventilation of the storage area.

**Packaging materials:**

Keep only in the original container in a cool, well-ventilated place.

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### Requirements for storage rooms and vessels:

Store locked up.

### Hints on storage assembly:

Do not store together with:

Oxidising agent

Food and feedingstuffs

### Further information on storage conditions:

Keep locked up.

Store small packages in a suitable, robust cabinet.

Keep container tightly closed and in a well-ventilated place.

### 7.3. Specific end use(s)

#### Recommendation:

Observe technical data sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
IOELV (EU)	methanol CAS No.: 67-56-1	① 200 ppm (260 mg/m <sup>3</sup> ) ⑤ (may be absorbed through the skin)
TRGS 900 (DE)	methanol CAS No.: 67-56-1	① 200 ppm (270 mg/m <sup>3</sup> ) ② 800 ppm (1,080 mg/m <sup>3</sup> ) ⑤ (kann über die Haut aufgenommen werden)

#### 8.1.2. Biological limit values

Limit value type (country of origin)	Substance name	Limit value	① parameter ② Test material ③ Time of sampling ④ Remark
TRGS 903 (DE)	methanol CAS No.: 67-56-1	30 mg/L	① Methanol ② Urin ③ bei Langzeitexposition, Expositionsende bzw. Schichtende

#### 8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
methanol CAS No.: 67-56-1	260 mg/m <sup>3</sup>	① DNEL worker ② DNEL acute inhalative (local)
methanol CAS No.: 67-56-1	50 mg/m <sup>3</sup>	① DNEL Consumer ② DNEL acute inhalative (local)
methanol CAS No.: 67-56-1	260 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (local)
methanol CAS No.: 67-56-1	40 mg/kg bw/day	① DNEL worker ② DNEL acute dermal, short-term (local)
methanol CAS No.: 67-56-1	8 mg/kg bw/day	① DNEL Consumer ② DNEL long-term dermal (local)

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Substance name	PNEC Value	① PNEC type
methanol CAS No.: 67-56-1	20.8 mg/l	① PNEC aquatic, freshwater
methanol CAS No.: 67-56-1	2.08 mg/l	① PNEC aquatic, marine water
methanol CAS No.: 67-56-1	100 mg/l	① PNEC sewage treatment plant (STP)

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Use explosion-proof ventilating equipment.

Use explosion-proof lighting equipment.

Use explosion-proof electrical equipment.

#### 8.2.2. Personal protection equipment

##### Eye/face protection:

Eye glasses with side protection

##### Skin protection:

Suitable gloves type:

Suitable material: NEOPREN

Thickness of the glove material : 0,4 - 0,6 mm

Breakthrough time (maximum wearing time) : 480 min

Unsuitable material: NBR (Nitrile rubber), NR (natural rubber, natural latex)

##### Respiratory protection:

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Filtering device (full mask or mouthpiece) with filter: A

#### 8.2.3. Environmental exposure controls

No data available

### 8.3. Additional information

Preventive industrial medical examinations are to be offered.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state: Liquid

Colour: colourless

Odour: Alcohol

Odour threshold: not determined

#### Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not determined</i>			
Melting point	<i>not determined</i>			
Freezing point	-98 °C			
Initial boiling point and boiling range	64.7 °C			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	9 - 11 °C			
Evaporation rate	<i>not determined</i>			
Ignition temperature in °C	> 440 °C			
Upper/lower flammability or explosive limits	6 - 45.5 Vol-%			literature value
Vapour pressure	169 hPa	25 °C		
Vapour density	<i>not determined</i>			

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parameter		at °C	Method	Remark
Relative density	0.8 g/cm <sup>3</sup>	20 °C		
Bulk density	<i>not determined</i>			
Water solubility				completely miscible
Partition coefficient: n-octanol/ water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>not determined</i>	40 °C		

### 9.2. Other information

Vapours can form explosive mixtures with air.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

### 10.2. Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

No known hazardous reactions.

### 10.4. Conditions to avoid

Heat

### 10.5. Incompatible materials

Alkali metals, Oxidising agent, strong

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
67-56-1	methanol	<b>LD<sub>50</sub> oral:</b> 5,625 mg/kg (Ratte) Lit: IUCLID <b>LD<sub>50</sub> dermal:</b> 15,800 mg/kg (Kaninchen) Lit: TOXNET <b>LC<sub>50</sub> inhalative:</b> 85.3 mg/l 4 h (Ratte) Lit: IUCLID <b>ATE oral:</b> 100 mg/kg <b>ATE dermal:</b> 300 mg/kg <b>ATE inhalativ Dämpfe:</b> 11 mg/l

#### Acute oral toxicity:

Acute Tox. 3  
Practical/human experience.

#### Acute dermal toxicity:

Acute Tox. 3  
Practical/human experience.

#### Acute inhalation toxicity:

Acute Tox. 3  
Practical/human experience.

#### Skin corrosion/irritation:

Not an irritant.

#### Serious eye damage/irritation:

Not an irritant.

#### Respiratory or skin sensitisation:

not sensitising.

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### Germ cell mutagenicity:

No experimental indications of mutagenicity in-vitro exist.

### Carcinogenicity:

No indication of human carcinogenicity.

### Reproductive toxicity:

No indications of human reproductive toxicity exist.

### STOT-single exposure:

Practical experience/human evidence

Causes damage to organs.: eyes

### STOT-repeated exposure:

Practical experience/human evidence

Causes damage to organs.: eyes

### Aspiration hazard:

Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

CAS No.	Substance name	Toxicological information
67-56-1	methanol	LC <sub>50</sub> : 15,400 mg/l 4 d (Fische) EC <sub>50</sub> : 10,000 mg/l 2 d (Daphnien)

### Assessment/classification:

The substance/mixture does not fulfill the criteria of the acute aquatic toxicity according to Regulation (EC) No 1272/2008 [CLP]-, Annex I.

### 12.2. Persistence and degradability

CAS No.	Substance name	Biodegradation	Remark
67-56-1	methanol	Yes, rapidly	

### Biodegradation:

Readily biodegradable (according to OECD criteria).

### 12.3. Bioaccumulative potential

#### Accumulation / Evaluation:

No indication of bioaccumulation potential.

### 12.4. Mobility in soil

No adsorption in soil or sediment.

### 12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
67-56-1	methanol	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

List of proposed waste codes/waste designations in accordance with AAV:

#### 13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV



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### Waste code product:

16 05 08 *	discarded organic chemicals consisting of or containing hazardous substances
14 06 03 *	other solvents and solvent mixtures

\*: Evidence for disposal must be provided.

### Waste code packaging:

16 05 08 *	discarded organic chemicals consisting of or containing hazardous substances
------------	--

\*: Evidence for disposal must be provided.

### Waste treatment options

#### Appropriate disposal / Product:

Dispose of waste according to applicable legislation.









#### Appropriate disposal / Package:

Contaminated packages must be completely emptied and can be re-used following proper cleaning.

### 13.2. Additional information

No data available

## SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
<b>14.1. UN-No.</b>			
UN 1230	UN 1230	UN 1230	UN 1230
<b>14.2. UN proper shipping name</b>			
METHANOL	METHANOL	METHANOL	METHANOL
<b>14.3. Transport hazard class(es)</b>			
 3	 3	 3	 3
 6.1	 6.1	 6.1	 6.1
<b>14.4. Packing group</b>			
II	II	II	II
<b>14.5. Environmental hazards</b>			
No	No	No	No
<b>14.6. Special precautions for user</b>			
<b>Special provisions:</b> <b>Limited quantity (LQ):</b> <b>Hazard identification number (Kemler No.):</b> 336 <b>Classification code:</b> FT1 <b>tunnel restriction code:</b> (D/E) <b>Remark:</b>	<b>Special provisions:</b> <b>Limited quantity (LQ):</b> <b>Classification code:</b> - <b>Remark:</b>	<b>Special provisions:</b> <b>Limited quantity (LQ):</b> <b>EmS-No.:</b> <b>Remark:</b>	<b>Special provisions:</b> <b>Limited quantity (LQ):</b> <b>Remark:</b>

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

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### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### 15.1.1. EU legislation

###### Restrictions on use:

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

##### 15.1.2. National regulations

###### [DE] National regulations

###### Restrictions of occupation

Do not sell or give to persons under the age of 18 years.

5 MuSchRiV.

22 JArbSchG.

4 MuSchRiV.

###### Annex Chemikalien-Verbotsverordnung (ChemVerbotsV)

§ 3 ChemVerbotsV

§ 4 ChemVerbotsV

###### Water hazard class (WGK)

###### WGK:

1 - schwach wassergefährdend

#### 15.2. Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

#### 15.3. Additional information

No data available

### SECTION 16: Other information

#### 16.1. Indication of changes

No data available

#### 16.2. Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

#### 16.3. Key literature references and sources for data

REACH Dissemination Portal

#### 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

##### Classification according to Regulation (EC) No 1272/2008 [CLP]-:

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids ( <i>Flam. Liq. 2</i> )	H225: Highly flammable liquid and vapour.	Minimum classification.
Acute toxicity (oral) ( <i>Acute Tox. 3</i> )	H301: Toxic if swallowed.	Minimum classification.
Acute toxicity (dermal) ( <i>Acute Tox. 3</i> )	H311: Toxic in contact with skin.	Minimum classification.
Acute toxicity (inhalative) ( <i>Acute Tox. 3</i> )	H331: Toxic if inhaled.	Minimum classification.
STOT-single exposure ( <i>STOT SE 1</i> )	H370: Causes damage to organs. (...)	Minimum classification.

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### 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

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. (...)

### 16.6. Training advice

Make sure that employees are aware of the intoxication risk. People wearing breathing apparatus must be appropriately trained.

### 16.7. Additional information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

This Safety Data Sheet was drawn up by  
TÜV SÜD Industrie Service GmbH (see below),  
based on data from the supplier, who is named in section 1  
and who is responsible for this document.  
TÜV SÜD Industrie Service GmbH  
Department Environmental Service  
Westendstraße 199  
80686 Munich - Germany