

Methanol

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

1.1 - Product identifier

Trade name/designation Methanol
Chemical name methanol
Product-type Substance
Product code PTT-Metha
Index No. 603-001-00-X EC No. 200-659-6 CAS No. 67-56-1

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

Relevant identified uses - calibration solution

1.3 - Details of the supplier of the safety data sheet

Water-I.D. GmbH
Daimlerstr. 20
76344 Eggenstein Germany
Telephone : +49 (0) 721 - 78 20 29 - 0 Fax +49 (0) 721 - 78 20 29 - 11
Website www.water-id.com
EHS / Compliance: lab@water-id.com

1.4 - Emergency telephone number

- Poison Control Center Munich
Tel: +49 (0) 89 / 19 24 0
Germany
24 hour service
Languages: German, English
please also call from: United Kingdom

SECTION 2: Hazards identification

2.1 - Classification of the substance or mixture

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

| | |
|-------------------------|---|
| Flam. Liq. 2 | Flammable liquid and vapour. - Category 2 |
| Acute Tox. 3 Oral | Acute toxicity (oral) - Category 3 |
| Acute Tox. 3 Dermal | Acute toxicity (dermal) - Category 3 |
| Acute Tox. 3 Inhalation | Acute toxicity (inhalative) - Category 3 |
| STOT SE 1 | STOT-single exposure - Category 1 |

2.2 - Label elements

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

Signal word : Danger

Hazard pictograms



Hazard statements

| | |
|------|------------------------------------|
| H225 | Highly flammable liquid and vapour |
|------|------------------------------------|

Methanol

| | |
|-----------|---|
| H301 | Toxic if swallowed |
| H311+H331 | Toxic in contact with skin or if inhaled. |
| H370 | Causes damage to organs (eye |

Precautionary statements

| | |
|----------------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P233 | Keep container tightly closed. |
| P270 | Do not eat, drink or smoke when using this product. |
| P280 | Wear protective gloves, eye protection. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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/.... |

EUH-phrases : None

2.3 - Other hazards

PBT-substance. - No information available.

vPvB-substance. - No information available.

Other hazards which do not result in classification - No information available.

SECTION 3: Composition / information on ingredients

3.1 - Substances

3.2 - Mixtures

Not applicable

SECTION 4: First aid measures

4.1 - Description of first aid measures

Following inhalation

- Seek medical attention immediately.
- In case of breathing difficulties or respiratory arrest, initiate artificial respiration.

Following skin contact

- After contact with skin, wash immediately with plenty of water.
- Remove contaminated, saturated clothing immediately.

After eye contact

- Rinse immediately carefully and thoroughly with eye-bath or water.
- Seek medical advice if symptoms occur or in cases of doubt.

After ingestion

- Rinse mouth immediately and drink plenty of water.
- Call a physician immediately.

4.2 - Most important symptoms and effects, both acute and delayed

Symptoms and effects - Following inhalation - Cough.

Symptoms and effects - Following skin contact - Has a degreasing effect.

Methanol

| | |
|---|---|
| <u>Symptoms and effects - After eye contact</u> | - conjunctival redness in the eye, inflammation of the conjunctiva |
| <u>Symptoms and effects - After ingestion</u> | - Abdominal pain. - indisposition - Vomiting. - Loss of reflex and ataxia (disturbance of movement coordination). - Severe deterioration of vision. - Risk of blindness. - Poisoning effect on the central nervous system, causing cramps, shortness of breath and unconsciousness. - It can lead to headaches, dizziness, fainting and unconsciousness. - High doses can lead to coma and death. |

4.3 - Indication of any immediate medical attention and special treatment needed

- Treat symptomatically. Antidotal dispensation.

SECTION 5: Firefighting measures

5.1 - Extinguishing media

| | |
|-------------------------------------|---|
| <u>Suitable extinguishing media</u> | - Adjust extinguishing measures to the environment. - Water spray - Foam - alcohol resistant foam - Extinguishing powder - Carbon dioxide (CO ₂) |
|-------------------------------------|---|

Unsuitable extinguishing media - Full water jet

5.2 - Special hazards arising from the substance or mixture

| | |
|--|---|
| <u>Special hazards arising from the substance or mixture</u> | - combustible - Vapours are heavier than air, spread on the ground and form explosive mixtures with air. - Vapours can form explosive mixtures with air. - Hazardous combustion products |
|--|---|

| | |
|---|--|
| <u>Hazardous decomposition products</u> | - Carbon monoxide - Carbon dioxide (CO ₂) |
|---|--|

5.3 - Advice for firefighters

- Fight fire with normal precautions from an appropriate distance.
- Wear a self-contained breathing apparatus and chemical protective clothing.

SECTION 6: Accidental release measures

6.1 - Personal precautions, protective equipment and emergency procedures

| | |
|------------------------------------|--------------------------------------|
| <u>For non-emergency personnel</u> | - Use personal protection equipment. |
|------------------------------------|--------------------------------------|

Methanol

- Wear breathing apparatus if exposed to vapours/dusts/aerosols.
- Do not breathe vapour/aerosol.
- Remove all sources of ignition.
- Avoid contact with eyes.
- Avoid contact with skin.

For emergency responders

- Wear personal protection equipment (refer to section 8).

6.2 - Environmental precautions

- Do not allow to enter into surface water or drains.
- Ensure waste is collected and contained.
- Danger of explosion.

6.3 - Methods and material for containment and cleaning up

Methods and material for containment

- Cover sewer systems.

Methods and material for cleaning up

- Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
- Clear contaminated areas thoroughly.
- Take up mechanically, placing in appropriate containers for disposal.
- Ventilate affected area.

Inappropriate techniques

- No information available.

6.4 - Reference to other sections

- Hazardous combustion products: see section 5.
- Safe handling: see section 7
- Personal protection equipment: see section 8
- Incompatible materials: see section 10.
- Disposal: see section 13

SECTION 7: Handling and storage

7.1 - Precautions for safe handling

Recommendation

- Use only in well-ventilated areas.
- Vapours/aerosols must be exhausted directly at the point of origin.
- All work processes must always be designed so that the following is excluded: Skin contact
- All work processes must always be designed so that the following is excluded: Inhalation
- All work processes must always be designed so that the following is excluded: generation/formation of aerosols
- Vapours can form explosive mixtures with air.
- Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.
- When using do not smoke.
- Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.

Methanol

Advices on general occupational hygiene

- Avoid contact with skin, eyes and clothes.
- Wash contaminated clothing prior to re-use.
- Thorough skin-cleansing after handling the product.
- Wash hands before breaks and after work.
- When using do not eat, drink, smoke, sniff.
- Work in well-ventilated zones or use proper respiratory protection.

7.2 - Conditions for safe storage, including any incompatibilities

- Keep container tightly closed and in a well-ventilated place.
- Do not store together with: Food and feedingstuffs
- Do not store together with: Combustible substance
- Recommended storage temperature: 15 - 25 °C

7.3 - Specific end use(s)

- No information available.

SECTION 8: Exposure controls/personal protection

8.1 - Control parameters

8.2 - Exposure controls

Appropriate engineering controls

- No information available.

Individual protection measures, such as personal protective equipment

- Suitable eye protection: Eye glasses with side protection



- Suitable eye protection: Face protection umbrella



- When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.



- For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Suitable material: Butyl rubber
- Material thickness: 0.7 mm
- Breakthrough time of the glove material: >480 min. (permeation level: 6)
- Suitable respiratory protection apparatus: Respiratory protection helmet/hood



Methanol

- Respiratory protection Type: A
(organic gases vapours with boiling
point > 65 °C, colour code: brown).

Environmental exposure controls

- Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1 - Information on basic physical and chemical properties

| <u>Physical state</u> | Liquid | <u>Appearance</u> | Liquid |
|-------------------------------|------------|------------------------------------|--------------|
| <u>Colour</u> | colourless | <u>Odour</u> | like alcohol |
| Odour threshold | | No data available | |
| pH | | No data available | |
| Melting point | | -98 °C | |
| Freezing point | | No data available | |
| Boiling point | | 65 °C at 1013 hPa | |
| Flash point | | 9,7 °C at 1013 hPa | |
| Evaporation rate | | No data available | |
| flammability | | No data available | |
| Lower explosion limit | | 5,5 % Vol. at 1013 hPa | |
| Upper explosion limit | | 44 % Vol. at 1013 hPa | |
| Vapour pressure | | 128 hPa at 20 °C | |
| Vapour density | | 1,11 Air = 1 | |
| Relative density | | No data available | |
| Density | | 0,79 g/cm ³ at 20 °C | |
| Solubility (Water) | | completely miscible | |
| Solubility (Ethanol) | | No data available | |
| Solubility (Acetone) | | No data available | |
| Solubility (Organic solvents) | | No data available | |
| Log KOC | | -0,77 (ECHA) | |
| Auto-ignition temperature | | 455 °C at 1013 hPa | |
| Decomposition temperature | | No data available | |
| Kinematic viscosity | | No data available | |
| Dynamic viscosity | | 0,6 mPa.s at 20 °C | |

9.2 - Other information

| | |
|-------------------------|-------------------|
| VOC content | 100 % |
| Minimum ignition energy | No data available |
| Conductivity | No data available |

Methanol

SECTION 10: Stability and reactivity

10.1 - Reactivity

- Risk of ignition.
- Vapours can form explosive mixtures with air.

10.2 - Chemical stability

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

10.3 - Possibility of hazardous reactions

- No hazardous reaction when handled and stored according to provisions.

10.4 - Conditions to avoid

- In case of warming: Ignition hazard

10.5 - Incompatible materials

- No information available.

10.6 - Hazardous decomposition products

- Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 - Information on toxicological effects

Acute toxicity

- Acute toxicity (oral) - Category 3 - Toxic if swallowed
- Acute toxicity (dermal) - Category 3
- Acute toxicity (inhalative) - Category 3

| | |
|---------------------------------------|-----------------------|
| LD50 oral (rat) | 5628 mg/kg TOXNET |
| LD50 dermal (rat) | No data available |
| LD50 dermal (rabbit) | 15800 mg/kg TOXNET |
| LC50 inhalation (rat) | No data available |
| LC50 inhalation dusts and mists (rat) | No data available |
| LC50 inhalation vapours (rat) | 128 mg/l ECHA |

Skin corrosion/irritation

- Not classified

Serious eye damage/eye irritation

- Not classified
- Risk of serious damage to eyes.

Respiratory or skin sensitisation

- Not classified

Germ cell mutagenicity

- Not classified

Carcinogenicity

- Not classified

Reproductive toxicity

- Not classified

Methanol

| | |
|-------------------------------|--|
| <u>STOT-single exposure</u> | - STOT-single exposure - Category 1 - Causes damage to organs (eye) - No information available. |
| <u>STOT-repeated exposure</u> | - Not classified - No information available. |
| <u>Aspiration hazard</u> | - Not classified |

SECTION 12: Ecological information

12.1 - Toxicity

| | |
|-----------------------------------|--------------------|
| EC50 48 hr crustacea | No data available |
| LC50 96 hr fish | No data available |
| ErC50 algae | No data available |
| ErC50 other aquatic plants | No data available |
| NOEC chronic fish | 23,75 mg/l ECHA |
| NOEC chronic crustacea | No data available |
| NOEC chronic algae | No data available |
| NOEC chronic other aquatic plants | No data available |

- 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

| | |
|---------------------------------|-------------------|
| Biochemical oxygen demand (BOD) | No data available |
| Chemical oxygen demand (COD) | No data available |
| % of biodegradation in 28 days | No data available |

- No information available.

12.3 - Bioaccumulative potential

| | |
|-------------------------------|-------------------|
| Bioconcentration factor (BCF) | No data available |
| Log KOC | -0,77 (ECHA) |

- No indication of bioaccumulation potential.

12.4 - Mobility in soil

- No information available.

12.5 - Results of PBT and vPvB assessment

- No information available.

- No information available.

12.6 - Other adverse effects

- Water endangering

SECTION 13: Disposal considerations

Methanol

13.1 - Waste treatment methods

| | |
|---|---|
| <u>Waste treatment methods</u> | <ul style="list-style-type: none">- Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.- Handle contaminated packages in the same way as the substance itself. |
| <u>Sewage disposal</u> | <ul style="list-style-type: none">- Do not empty into drains. |
| <u>Special precautions for waste treatment</u> | <ul style="list-style-type: none">- Waste requires special monitoring.- Collect the waste separately.- Send to a hazardous waste incinerator facility under observation of official regulations.- The waste is to be kept separate from other types of waste until its disposal. |
| <u>Community or national or regional provisions</u> | <ul style="list-style-type: none">- Dispose according to legislation. |

SECTION 14: Transport information

14.1 - UN number

| | | |
|-------------------------|---|--------|
| <u>UN number (ADR)</u> | : | UN1230 |
| <u>UN number (RID)</u> | : | UN1230 |
| <u>UN number (ADN)</u> | : | UN1230 |
| <u>UN number (IMDG)</u> | : | UN1230 |
| <u>UN number (IATA)</u> | : | UN1230 |

14.2 - UN proper shipping name

| | | |
|---------------------------------------|---|----------|
| <u>UN proper shipping name (ADR)</u> | : | METHANOL |
| <u>UN proper shipping name (RID)</u> | : | METHANOL |
| <u>UN proper shipping name (ADN)</u> | : | METHANOL |
| <u>UN proper shipping name (IMDG)</u> | : | METHANOL |
| <u>UN proper shipping name (IATA)</u> | : | METHANOL |

14.3 - Transport hazard class(es)

Methanol

ADR Transport hazard class(es) : 3
ADR Classification code: : FT1
Pictograms



Transport hazard class(es) (RID) : 3
Pictograms



Transport hazard class(es) (ADN) : 3
Pictograms



Transport hazard class(es) (IMDG) : 3
Pictograms



Transport hazard class(es) (IATA) : 3
Pictograms



14.4 - Packing group

Packing group : II
Packing group (RID) : II
Packing group (ADN) : II
Packing group (IMDG) : II
Packing group (IATA) : II

14.5 - Environmental hazards

Environmental hazards : No
Marine pollutant : No

14.6 - Special precautions for user

Methanol

ADR

| | | |
|--|---|------------|
| <u>ADR Classification code:</u> | : | FT1 |
| <u>ADR Special provisions</u> | : | 279 |
| <u>ADR Limited quantity (LQ)</u> | : | 1 L |
| <u>ADR Excepted quantities</u> | : | E2 |
| <u>ADR Packing instructions</u> | : | P001 IBC02 |
| <u>ADR Special packing provisions</u> | : | |
| <u>ADR Mixed packing provisions</u> | : | MP19 |
| <u>Instructions for portable tanks and bulk containers</u> | : | T7 |
| <u>Special provisions for portable tanks and bulk containers</u> | : | TP2 |
| <u>ADR tank code</u> | : | L4BH |
| <u>ADR tanks special provisions</u> | : | TU15 |
| <u>Vehicle for tank carriage</u> | : | FL |
| <u>ADR Transport category</u> | : | 2 |
| <u>ADR Tunnel restriction code</u> | : | D/E |
| <u>ADR Special provisions loading, unloading and handling</u> | : | CV13 CV28 |
| <u>Special provisions - Packages</u> | : | |
| <u>Special provisions - Bulk</u> | : | |
| <u>Special provisions - Operation</u> | : | S2, S19 |
| <u>ADR Hazard identification number (Kemler No.)</u> | : | 336 |

RID

| | | |
|------------------------------|---|-----|
| <u>Special provisions</u> | : | 279 |
| <u>Limited quantity (LQ)</u> | : | 1 L |
| <u>Excepted quantities</u> | : | E2 |

ADN

| | | |
|------------------------------|---|-----|
| <u>Special provisions</u> | : | 802 |
| <u>Limited quantity (LQ)</u> | : | 1 L |
| <u>Excepted quantities</u> | : | E2 |

IMDG

| | | |
|--|---|----------|
| <u>Special provisions</u> | : | 279 |
| <u>Limited quantity (LQ)</u> | : | 1 L |
| <u>Excepted quantities</u> | : | E2 |
| <u>Packing instructions</u> | : | |
| <u>Special packing provisions</u> | : | |
| <u>IBC instruction(s)</u> | : | |
| <u>IBC provisions</u> | : | |
| <u>Instructions for portable tanks and bulk containers</u> | : | |
| <u>Special provisions for portable tanks and bulk containers</u> | : | |
| <u>EmS codes</u> | : | F-E, S-D |
| <u>Stowage and handling</u> | : | |
| <u>Segregation</u> | : | |
| <u>Properties and observations</u> | : | |

Methanol

IATA

| | | |
|--|---|------|
| <u>PCA - Excepted quantities</u> | : | E2 |
| <u>PCA - Limited Quantity - Packing Instructions</u> | : | 1 L |
| <u>PCA - Limited Quantity - Maximum Net Quantity per Package</u> | : | |
| <u>PCA - Packing Instructions</u> | : | |
| <u>PCA - Maximum Net Quantity per Package</u> | : | |
| <u>CAO - Packing Instructions</u> | : | |
| <u>CAO - Maximum Net Quantity per Package</u> | : | |
| <u>Special Provisions</u> | : | A113 |
| <u>ERG Code</u> | : | |

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

- The cargo shall not be carried in bulk.

SECTION 15: Regulatory information

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

| | |
|------------------------------------|-------|
| <u>Substances REACH candidates</u> | None |
| <u>Substances Annex XIV</u> | None |
| <u>Substances Annex XVII</u> | None |
| <u>VOC content</u> | 100 % |

- hazardous to water (WGK 2)

15.2 - Chemical Safety Assessment

Chemical safety assessment carried out for the product - No information available.

SECTION 16: Other information

SDS versions

| Version | Issue date | Description of the amendments |
|---------|------------|-------------------------------|
| 1 | 16.07.2019 | |

MSDS creation

Abbreviations and acronyms - See overview table at www.euphrac.eu

literature infomation ordinance (EG) Nr. 1272/2008 (CLP, EU-GHS)

Texts of the regulatory sentences

| | |
|-------------------------|---|
| Acute Tox. 3 Dermal | Acute toxicity (dermal) - Category 3 |
| Acute Tox. 3 Inhalation | Acute toxicity (inhalative) - Category 3 |
| Acute Tox. 3 Oral | Acute toxicity (oral) - Category 3 |
| Flam. Liq. 2 | Flammable liquid and vapour. - Category 2 |
| H225 | Highly flammable liquid and vapour |

Methanol

| | |
|-----------|---|
| H301 | Toxic if swallowed |
| H311+H331 | Toxic in contact with skin or if inhaled. |
| H370 | Causes damage to organs (eye |
| STOT SE 1 | STOT-single exposure - Category 1 |

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.

*** **