

Trade name: Methanolum

Substance number: 155620

Version: 2 / CH

Date revised: 22.06.2021

Replaces Version: 1 / CH

Print date: 22.06.21

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

1.1. Product identifier

Methanolum

Item No. 15562000

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

Use of the substance/preparation

Manufacture of pharmaceutical products

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Hänseler AG

Industriestrasse 35

9100 Herisau

Telephone no. 0041 (0)71 353 58 58

E-mail address of sdb@haenseler.ch

person responsible

for this SDS

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2 H225

Acute Tox. 3 H301

Acute Tox. 3 H311

Acute Tox. 3 H331

STOT SE 1 H370

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Danger

Hazard statements

H225

Highly flammable liquid and vapour.

H370

Causes damage to organs.

Eyes

Route of exposure: oral

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H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P308+P311 IF exposed or concerned: Call a POISON CENTER or doctor.

P321 Specific treatment (see ... on this label).

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains *** methanol

SECTION 3: Composition/information on ingredients *****3.1. Substances****Molecular weight**

Value	32.04	g/mol
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Hazardous ingredients *****methanol**

CAS No.	67-56-1	
EINECS no.	200-659-6	
Registration no.	01-2119433307-44-XXXX	
Concentration	>= 100	%
Classification (Regulation (EC) No. 1272/2008)		
	Flam. Liq. 2	H225
	Acute Tox. 3	H301
	Acute Tox. 3	H311
	Acute Tox. 3	H331
	STOT SE 1	H370

Concentration limits (Regulation (EC) No. 1272/2008)

STOT SE 1	H370	>= 10
STOT SE 2	H371	>= 3 < 10

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove affected person from danger area, lay him down. Take off contaminated clothing and shoes immediately. Adhere to personal protective measures when giving first aid

After inhalation

Ensure supply of fresh air. If necessary, give oxygen. Summon a doctor immediately. Irregular breathing/no breathing: artificial respiration. If the patient is likely to become unconscious, place and transport in stable sideways position.

After skin contact

Wash off immediately with soap and water and rinse well. Summon a doctor immediately.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Take medical treatment.

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After ingestion

Rinse out mouth and give plenty of water to drink. Induce vomiting if patient is conscious, seek medical advice. If individual is drowsy or unconscious place in recovery position (on left side, with head down). Summon a doctor immediately.

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

Shortness of breath, Dizziness, Headache, Nausea, Excitement, Acidosis, Convulsions, Unconsciousness, Narcosis

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide, Dry powder, Water spray jet, Alcohol-resistant foam

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Carbon monoxide (CO); Carbon dioxide (CO₂); The product is combustible. Keep away sources of ignition. Forms explosive mixture with air are possible. Vapours heavier than air. In case of combustion evolution of dangerous gases possible.

5.3. Advice for firefighters**Special protective equipment for fire-fighting**

Use self-contained breathing apparatus. Use personal protective clothing.

Other information

Cool endangered containers with water spray jet. Collect contaminated fire-fighting water separately, must not be discharged into the drains.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Do not inhale vapours. Use breathing apparatus if exposed to vapours/dust/aerosol. Ensure adequate ventilation. Keep away sources of ignition. Not required.

6.2. Environmental precautions

Do not empty into drains. Explosive

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material. When picked up, treat material as prescribed under Section 13 "Disposal". Clean up affected area.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Avoid contact with skin, eyes and clothing. For personal protection see Section 8.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Vapours can form an explosive mixture with air. Take action to prevent static discharges. Use explosion-proof equipment/fittings and non-sparking tools. Risk of explosion if the liquid enters the drains.

7.2. Conditions for safe storage, including any incompatibilities**Recommended storage temperature**

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Value 15 - 25 °C

Requirements for storage rooms and vessels

explosion proof. Provide solvent-resistant and impermeable floor. Use stainless steel containers. Do not use light metal drums. Unsuitable material: Do not use lead containers. Do not use aluminium containers. Do not use zinc containers. Prevent unauthorized access.

Hints on storage assembly

Do not store with oxidizing agents. Do not store with acids.

Storage classes

Storage class according to TRGS 510	3	Flammable liquid
Storage category (Switzerland)	3	Flammable liquid

Further information on storage conditions

Keep container tightly closed, cool and dry. Protect from direct sunlight. Protect from heat. Protect from atmospheric moisture and water. Product is hygroscopic. Keep under lock and key or accessible only to specialists or people who are authorized.

SECTION 8: Exposure controls/personal protection *****8.1. Control parameters****Exposure limit values *******methanol**

List	SUVA			
Type	MAK			
Value	260	mg/m ³	200	ppm(V)
Short term exposure limit	1040	mg/m ³	800	ppm(V)

Skin resorption / sensibilisation: H; Pregnancy group: S; Remarks: H B SSc; ZNS, Sehen; INRS, NIOSH

Derived No/Minimal Effect Levels (DNEL/DMEL)**methanol**

Type of value	Derived No Effect Level (DNEL)		
Reference group	Worker		
Duration of exposure	Acute		
Route of exposure	dermal		
Mode of action	Systemic effects		
Concentration	40		mg/kg/d

Type of value	Derived No Effect Level (DNEL)		
Reference group	Worker		
Duration of exposure	Acute		
Route of exposure	inhalative		
Mode of action	Systemic effects		
Concentration	260		mg/m ³

Type of value	Derived No Effect Level (DNEL)		
Reference group	Worker		
Duration of exposure	Acute		
Route of exposure	inhalative		
Mode of action	Local effects		
Concentration	260		mg/m ³

Type of value	Derived No Effect Level (DNEL)		
Reference group	Worker		
Duration of exposure	Long term		
Route of exposure	dermal		

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Mode of action	Systemic effects	
Concentration	40	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	260	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	260	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	8	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	50	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	8	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	50	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	8	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	

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Concentration	50	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	8	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	50	mg/m ³

Predicted No Effect Concentration (PNEC)

methanol

Type of value	PNEC	
Type	Freshwater	
Concentration	154	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	15.4	mg/l
Type of value	PNEC	
Type	Sediment	
Concentration	570.4	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	23.5	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	100	mg/l
Conditions	Intermittend	
Concentration	1540	mg/l

8.2. Exposure controls

Exposure controls

See Section 7. No measures exceeding the ones mentioned necessary.

General protective and hygiene measures

Keep away from food-stuffs, beverages and feed-stocks. Wash hands before breaks and after work. Avoid contact with skin and eyes. Hold eye wash fountain available. At work do not eat, drink, smoke or take drugs. Do not inhale gases/vapours/aerosols.

Respiratory protection

If vapours occur, use filter type A (= against vapours of organic compounds) according to EN 14387. At intensive and longer exposition use self-contained breathing apparatus.

Hand protection

Use Permanent hand contact

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Appropriate Material	Butyl rubber - Butyl
Material thickness	0.7 mm
Breakthrough time	480 min
Hand protection must comply with EN 374.	
Use	Short-term hand contact
Appropriate Material	viton
Material thickness	0.7 mm
Breakthrough time	120 min
Hand protection must comply with EN 374.	

Eye protection

Eye protection must comply with EN 166. Tightly fitting safety glasses

Body protection

Fire-resistant antistatic protective clothing

Environmental exposure controls

Do not allow to enter drains or water courses.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Form	liquid
Colour	colourless
Odour	characteristic
Odour	acid
Odour threshold	
Value	10 µg/l
pH value	
Remarks	No data available
Melting point	
Value	-97.8 °C
Source	ECHA
Freezing point	
Value	- 98 °C
Initial boiling point and boiling range	
Value	64.7 °C
Pressure	1013 hPa
Source	ECHA
Flash point	
Value	9.7 °C
Method	Regulation (EC) No. 440/2008, Annex, A.9
Evaporation rate	
Value	6.3
Upper/lower flammability or explosive limits	
Lower explosion limit	5.5 to 44 %(V)
Vapour pressure	
Value	169.27 hPa
Temperature	25 °C
Vapour density	
Value	1.11
Density	

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Value	0.79	to	0.8	g/cm ³
Temperature	20	°C		
Remarks	Relative Density according specification			

Solubility in water

Value	1000			g/l
Temperature	20	°C		

Partition coefficient: n-octanol/water

log Pow	-0.77
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Ignition temperature

Value	420	°C
Method	DIN 51794	

Minimum ignition energy

Minimum ignition energy	0.14	MJ
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Auto-ignition temperature

Value	455	°C
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Viscosity**dynamic**

Value	> 0.544	to	0.59	mPa.s
Temperature	25	°C		

kinematic

Value	0.54	to	0.59	mm ² /s
Temperature	20	°C		

Explosive properties

evaluation	No data available
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9.2. Other information**Other information**

Forms explosive mixture with air are possible.

SECTION 10: Stability and reactivity**10.1. Reactivity**

Risk of ignition or formation of inflammable gases or vapours with: Air

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

Possible incompatibility with materials listed under section 10.5.

10.4. Conditions to avoid

Heat. Sparks

10.5. Incompatible materials

Risk of explosion with: Oxidising agents, Sodium hypochlorite, Nitrogen oxides (NO_x), Reaction with Sulfuric acid. Explosive reactions with oxidising agents such as potassium chlorate and/or peroxides. Halogens, Reactions with halogenated compounds. lithium tetrahydroaluminate, hydrogen peroxide (H₂O₂). Magnesium, Reaction with nitric acid. Exothermic reaction with acids. Incompatible with acid chlorides and acid anhydrides. Reducing agents, chlorine liquid, Magnesium, Fluorine, Phosphorus oxides, Development of toxic gases/vapours. Alkaline metals, Reactions with earth alkali metals.

10.6. Hazardous decomposition products

In the event of fire the following can be released: Carbon monoxide and carbon dioxide

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

ATE	143	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	

Acute oral toxicity (Components)

methanol

Species	Human	
LDLo	143	mg/kg
Source	RTECS	

Acute dermal toxicity

ATE	300	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	

Acute dermal toxicity (Components)

methanol

Species	rabbit	
LD50	17100	mg/kg

Acute inhalational toxicity

ATE	0.5	mg/l
Administration/Form	Dust/Mist	
Method	calculated value (Regulation (EC) No. 1272/2008)	

Acute inhalative toxicity (Components)

methanol

Species	rat	
LC50	131.25	mg/l
Duration of exposure	4	h
Administration/Form	Vapors	
Source	ECHA	

Skin corrosion/irritation (Components)

methanol

Species	rabbit
Remarks	No effect of irritation known.
Source	ECHA

methanol

Remarks	Repeated and prolonged skin contact may lead to defatting and irritation of the skin.
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Serious eye damage/irritation (Components)

methanol

Species	rabbit
Method	OECD 405
Remarks	None

Sensitization (Components)

methanol

Species	guinea pig
Method	OECD 406
Remarks	No sensitisation effect known.
Source	Maximierungstest (GMPT)

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Subacute, subchronic, chronic toxicity (Components)**methanol**

Remarks No data available.

Mutagenicity (Components)**methanol**

Species Salmonella typhimurium
 evaluation No mutagenicity in the Ames-test.
 Method OECD 471
 Remarks negative

methanol

Remarks negative on animals

Reproduction toxicity (Components)**methanol**

Species Rats (male/female)
 Dose 1.33 mg/l
 evaluation No negative effects

Carcinogenicity (Components)**methanol**

Remarks No data available

Specific Target Organ Toxicity (STOT) (Components)**methanol****Single exposure**

evaluation Causes damage to organs.
 Route of exposure oral
 Organs: Eyes
 Species Human

methanol

Route of exposure inhalative
 Species rat
 NOAEL 0.13 mg/l
 Duration of exposure 365 d
 Method OECD 453

methanol

Route of exposure inhalative
 Species Rats (male/female)
 LOAEL 1.3 mg/l
 Duration of exposure 365 d
 Method OECD 453
 Source Merck KGaA Safety Data Sheet

Experience in practice

May lead to nausea, headache, drowsiness and dizziness. When swallowed, there is a danger of blindness. Liver damage is possible. Kidney damage is possible. Heart damage is possible.

SECTION 12: Ecological information**12.1. Toxicity****Fish toxicity (Components)****methanol**

Species Bluegill (Lepomis macrochirus)
 LC50 15400 mg/l

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Duration of exposure 96 h
Source (EPA 600/3-75/009)

Daphnia toxicity (Components)**methanol**

Species Daphnia magna
EC50 > 10000 mg/l
Duration of exposure 48 h
Source IUCLID

methanol

Species Daphnia magna
EC50 18260 mg/l
Duration of exposure 96 h
Method OECD 202

Algae toxicity (Components)**methanol**

Species Pseudokirchneriella subcapitata
EC50 22000 mg/l
Duration of exposure 96 h
Method OECD 201

Bacteria toxicity (Components)**methanol**

Species activated sludge
IC50 > 1000 mg/l
Duration of exposure 3 h
Method OECD 209

12.2. Persistence and degradability**General information**

Do not allow it to reach soil, ground water, water bodies or sewage system.

Ready degradability (Components)**methanol**

Value 99 %
Duration of test 30 d
Method OECD 301D
Source Merck KGaA Safety Data Sheet

Chemical oxygen demand (COD) (Components)**methanol**

Value 1420 mg/g
Source IUCLID

Biochemical oxygen demand (BOD5) (Components)**methanol**

Value 600 to 1120 mg/g
Source IUCLID

12.3. Bioaccumulative potential**Partition coefficient: n-octanol/water**

log Pow -0.77

Octanol/water partition coefficient (log Pow) (Components)**methanol**

log Pow -0.77

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Bioconcentration factor (BCF) (Components)

methanol

BCF 1.0

12.4. Mobility in soil**Mobility in soil**

Moderately mobile in soils

Mobility in soil (Components)

methanol

Will not adsorb on soil.

12.5. Results of PBT and vPvB assessment**General information**

Do not allow to enter drains or water courses

Evaluation of persistence and bioaccumulation potential (Components)

methanol

The Substance doesn't meets PBT/vPvB-criteria

12.6. Other adverse effects**General information / ecology**

Do not allow it to reach ground water, water bodies or sewage system.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations for the product**

EWC waste code

No not dispose with rubbish.

Disposal in compliance with local and national regulations.

EWC waste code

Should not be released into the sanitary sewer system.

Disposal recommendations for packaging

Disposal in compliance with local and national regulations.

Unpurified packings can contain mixtures of gas and air which are capable of explosion.

SECTION 14: Transport information

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	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	D/E		
14.1. UN number	1230	1230	1230
14.2. UN proper shipping name	METHANOL	METHANOL	METHANOL
14.3. Transport hazard class(es)	3	3	3
Subsidiary risk	6.1	6.1	6.1
Label			
14.4. Packing group	II	II	II
Limited Quantity	1 I		
Transport category	2		

SECTION 15: Regulatory information

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

Water Hazard Class (Germany)

Water Hazard Class (Germany) WGK 2

Remarks Derivation of WGK according to Annex 1 No. 5.2 AwSV

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Hazard statements listed in Chapter 3

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.

CLP categories listed in Chapter 3

Acute Tox. 3 Acute toxicity, Category 3
 Flam. Liq. 2 Flammable liquid, Category 2
 STOT SE 1 Specific target organ toxicity - single exposure, Category 1

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
 This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

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