

Trade name: Formaldehydi solutio 4%

Substance number: 074280

Version: 4 / CH

Date revised: 18.12.2018

Replaces Version: 3 / CH

Print date: 01.10.19

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

1.1. Product identifier

Formaldehydi solutio 4%

Item No. 07428000

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

Use of the substance/preparation

Reagent for analyses

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)

Acute Tox. 4 H302

Skin Sens. 1 H317

Muta. 2 H341

Carc. 1B H350

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 ***

H302

Harmful if swallowed.

H317

May cause an allergic skin reaction.

H341

Suspected of causing genetic defects.

H350

May cause cancer.

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Precautionary statements ***

P201	Obtain special instructions before use.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264.1	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medicinal advice/attention.
P501.3	Disposal in compliance with local and national regulations.

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

contains *** Formaldehyde; Methanol

Supplemental information**Further supplemental information *****

Restricted to professional users

Other information ***

Not for supply to the general public in Switzerland

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

CAS No.	50-00-0
EINECS no.	200-001-8
Concentration	>= 3 < 5 %
Classification (Regulation (EC) No. 1272/2008)	
	Acute Tox. 3 H301
	Acute Tox. 3 H311
	Acute Tox. 3 H331
	Skin Corr. 1B H314
	Skin Sens. 1 H317
	Muta. 2 H341
	Carc. 1B H350

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

Eye Irrit. 2	H319	>= 5 < 25
Skin Corr. 1B	H314	>= 25
Skin Irrit. 2	H315	>= 5 < 25
Skin Sens. 1	H317	>= 0.2
STOT SE 3	H335	>= 5

CLP Regulation (EC) No 1272/2008, Annex VI, Note B, D

DSD Directive 67/548/EEC, Annex I, Note B, D

Methanol

CAS No.	67-56-1
EINECS no.	200-659-6
Registration no.	01-2119433307-44-XXXX
Concentration	>= 1 < 2.2 %
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

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Further ingredients *****Water**

CAS No. 7732-18-5

EINECS no. 231-791-2

Concentration >= 50 %

Advice: [4]

Note

[4] Voluntary information

SECTION 4: First aid measures**4.1. Description of first aid measures****After inhalation**

Ensure supply of fresh air. Summon a doctor immediately.

After skin contact

After contact with skin, wash immediately with plenty of water. Summon a doctor immediately. Remove contaminated, soaked clothing immediately and dispose of safely.

After eye contact

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Eye treatment by an Oculist.

After ingestion

Let plenty of water be drunk in small gulps. Summon a doctor immediately.

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

Allergic symptoms, Irritation of mucosa, Coughing, Shortness of breath

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

Extinguishing measures to suit surroundings

5.2. Special hazards arising from the substance or mixture

The product is not combustible. If a fire breaks out nearby evolution of dangerous gases possible.

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

Use self-contained breathing apparatus. Wear protective clothing.

Other information

Do not discharge into surface waters/groundwater.

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

Do not inhale vapours. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

6.2. Environmental precautions

Do not empty into drains.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (eg sand, kieselguhr, universal binder). When picked up, treat material as prescribed under Section 13 "Disposal". Clean up affected area.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Work only in fume cupboards. Avoid dust formation. Avoid formation of aerosols. Avoid inhaling dusts/billows/ steams. Observe safety references and application instructions mentioned on can.

7.2. Conditions for safe storage, including any incompatibilities

Recommended storage temperature

Value	15	25	°C
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Requirements for storage rooms and vessels

Do not use metal containers.

Storage classes

Storage class according to TRGS 510	6.1C	Combustible substances of acute toxicity, category 3 / hazardous substances that are toxic or produce chronic effects
Storage category (Switzerland)	6.1	Toxic substances

Further information on storage conditions

Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Formaldehyde

List	SUVA			
Type	MAK			
Value	0,37	mg/m ³	0,3	ppm(V)
Short term exposure limit	0,74	mg/m ³	0,6	ppm(V)

Pregnancy group: S; Status: 2017; Remarks: S SSc C1B; Auge; DFG, HSE, NIOSH, OSHA, kein erhöhtes Krebsrisiko bei MAK-Einhalten

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; Status: 2017; Remarks: H B SSc; ZNS, Sehen; INRS, NIOSH

8.2. Exposure controls

General protective and hygiene measures

Remove contaminated, soaked clothing immediately and dispose of safely. Preventative skin protection. Wash hands and face after work. Do not inhale vapours.

Respiratory protection

Breathing apparatus in the event of aerosol or mist formation.

Hand protection

Protective gloves			
Appropriate Material	nitrile rubber - NBR		
Material thickness	0.11	mm	
Breakthrough time	> 480	min	

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Eye protection

necessary

Body protection

protective overalls

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

Form	liquid, clear	
Colour	colourless	
Odour	characteristic	
Initial boiling point and boiling range		
Value	appr. 100	°C
Source	Estimated value	
Flash point		
Value	> 79	°C
Source	Estimated value	
Vapour pressure		
Value	> 1	hPa
Source	Estimated value	
Density		
Value	1.01	g/cm ³
Temperature	20	°C
Remarks	Relative Density according specification	

SECTION 10: Stability and reactivity**10.4. Conditions to avoid**

To avoid thermal decomposition, do not overheat. Heat

10.5. Incompatible materialsReacts violently with: Acids, Reacts with hydrogen peroxide (H₂O₂). Oxidising agents, Alkaline metals,
Incompatible with: Metals**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute oral toxicity**

ATE	1'869.72	mg/kg
	05	
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	5'131.80	mg/kg
	18	
Method	calculated value (Regulation (EC) No. 1272/2008)	

Acute inhalational toxicity

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ATE	71.5751	mg/l
Administration/Form	Vapors	
Method	calculated value (Regulation (EC) No. 1272/2008)	
ATE	8.553	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

evaluation	slightly irritant
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Skin corrosion/irritation (Components)**Formaldehyde**

Species	rabbit	
Duration of exposure	3	min
evaluation	corrosive	
Method	OECD 404	

Serious eye damage/irritation

evaluation	slightly irritant
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Serious eye damage/irritation (Components)**Formaldehyde**

Species	rabbit	
evaluation	irritant - risk of serious damage to eyes	

Sensitization

Remarks	May cause allergic skin reactions.
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Sensitization (Components)**Formaldehyde**

Route of exposure	dermal
Species	mouse
evaluation	sensitizing
Method	OECD 429

Mutagenicity (Components)**Formaldehyde**

evaluation	Information on genotoxicity in vivo available.
Method	Ames test
Remarks	positive

Reproduction toxicity (Components)**Methanol**

Species	Rats (male/female)
Dose	1.33 mg/l
evaluation	No negative effects
Source	Safety Data Sheet Supplier

Formaldehyde

Route of exposure	inhalative
Species	rat
evaluation	No negative effects

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Carcinogenicity

Remarks May cause cancer.

Carcinogenicity (Components)**Formaldehyde**

Route of exposure	inhalative
Species	rat
Duration of exposure evaluation	28 Months

Definitely confirmed as causing cancer in the experiment on test animals.

Experience in practice

Irritates the mucous membrane. After Swallowing: irritations in mouth, throat, oesophagus and gastrointestinal tract. Inhalation of thermal decomposition products may lead to adverse effects including pulmonary oedema.

Other information

Quantitative data concerning toxicity are not available.
Observe the usual precautions for handling chemicals.

SECTION 12: Ecological information**12.1. Toxicity****Fish toxicity**

Remarks No data available.

Fish toxicity (Components)**Methanol**

Species	Bluegill (<i>Lepomis macrochirus</i>)	
LC50	15400	mg/l
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	> 1000	mg/l
Duration of exposure	48	h
Method	OECD 202	

Formaldehyde

Species	Daphnia pulex	
EC50	5.8	mg/l
Duration of exposure	48	h
Method	OECD 202	

Algae toxicity (Components)**Methanol**

Species	Pseudokirchneriella subcapitata	
EC50	22000	mg/l
Duration of exposure	96	h
Method	OECD 201	
Source	Merck KGaA Safety Data Sheet	

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Formaldehyde

Species	Desmodesmus subspicatus	
EC50	4.89	mg/l
Duration of exposure	72	h
Method	OECD 201	

Bacteria toxicity (Components)**Methanol**

Species	activated sludge	
IC50	> 1000	mg/l
Duration of exposure	3	h
Method	OECD 209	
Source	Merck KGaA Safety Data Sheet	

Formaldehyde

EC50	34.1	mg/l
Duration of exposure	120	h

12.2. Persistence and degradability**Biodegradability**

Remarks	No data available.
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Biodegradability (Components)**Formaldehyde**

Value	91	%
Duration of test	14	d
evaluation	Readily biodegradable	
Method	OECD 301C	
Remarks	Test conducted with a similar formulation.	

Ready degradability (Components)**Methanol**

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

Methanol

Value	95	%
Duration of test	20	d
Source	Safety Data Sheet Supplier	

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

Value	1.42	mg/g
Source	IUCLID	

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

Value	600	to	1120	mg/g
Duration of test	5	d		
Source	IUCLID			

12.3. Bioaccumulative potential**Octanol/water partition coefficient (log Pow) (Components)****Methanol**

log Pow	-0.77
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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**

Disposal in compliance with local and national regulations.

Disposal recommendations for packaging

Dispose of as unused product.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number	Non-dangerous goods	The product does not constitute a hazardous substance in sea transport.	The product does not constitute a hazardous substance in air transport.

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 3

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 not 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.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H370	Causes damage to organs.

CLP categories listed in Chapter 3

Acute Tox. 3	Acute toxicity, Category 3
Carc. 1B	Carcinogenicity, Category 1B
Flam. Liq. 2	Flammable liquid, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
Skin Corr. 1B	Skin corrosion, Category 1B
Skin Sens. 1	Skin sensitization, Category 1

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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.