

Trade name: Ethanolum 96% denaturat

Substance number: 150300

Version: 4 / CH

Date revised: 17.12.2018

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

Ethanolum 96% denaturat
Item No. 15030000

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 person responsible for this SDS sdb@haenseler.ch

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

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.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243 Take action to prevent static discharges.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501.3 Disposal in compliance with local and national regulations.

2.3. Other hazards

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In use, may form flammable/explosive vapour-air mixture. Repeated exposure may cause skin dryness or cracking. Irritating to eyes, respiratory system and skin.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Alcoholic solution

Hazardous ingredients

Butanone

CAS No.	78-93-3				
EINECS no.	201-159-0				
Concentration	>=	1.4	<	8.5	%
Classification (Regulation (EC) No. 1272/2008)					
	Flam. Liq. 2			H225	
	Eye Irrit. 2			H319	
	STOT SE 3			H336	

4-Methylpentan-2-one

CAS No.	108-10-1				
EINECS no.	203-550-1				
Concentration			<	1	%
Classification (Regulation (EC) No. 1272/2008)					
	Flam. Liq. 2			H225	
	Acute Tox. 4			H332	
	Eye Irrit. 2			H319	
	STOT SE 3			H335	

Further ingredients

Ethanol

CAS No.	64-17-5				
EINECS no.	200-578-6				
Concentration			>=	90	%
Advice: [4]					
Classification (Regulation (EC) No. 1272/2008)					
	Flam. Liq. 2			H225	

Water

CAS No.	7732-18-5				
EINECS no.	231-791-2				
Concentration	>=	1	<	10	%
Advice: [4]					

Note

[4] Voluntary information

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of persistent symptoms consult doctor. Take off contaminated clothing and shoes immediately. If the patient is likely to become unconscious, place and transport in stable sideways position.

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After inhalation

Ensure supply of fresh air. In the event of symptoms take medical treatment.

After skin contact

Wash immediately with plenty of water for several minutes. Consult a doctor if skin irritation persists.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Summon a doctor immediately.

After ingestion

Do not induce vomiting - aspiration hazard. Summon a doctor immediately.

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

Headache, Dizziness, Unconsciousness, Nausea

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

Carbon dioxide, Dry powder, Water spray jet, Extinguish greater fire with water spray or alcohol-resistant foam.

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fires, hazardous combustion gases are formed; Carbon monoxide (CO); Carbon dioxide (CO₂)

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

Use self-contained breathing apparatus.

Other information

Cool endangered containers with water spray jet.

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

Use personal protective clothing. Remove persons to safety. Ensure adequate ventilation. Keep away sources of ignition.

6.2. Environmental precautions

Dilute with lot of water. Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder, sawdust).

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

Provide good ventilation of working area (local exhaust ventilation if necessary).

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take action to prevent static discharges.

7.2. Conditions for safe storage, including any incompatibilities

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Requirements for storage rooms and vessels

Keep tightly closed in a dry and cool place.

Storage classes

Storage class according to TRGS 510 3 Flammable liquid

Storage category (Switzerland) 3 Flammable liquid

Further information on storage conditions

Product is hygroscopic. Store only in the open air or in explosion-proof rooms.

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

List	SUVA			
Type	MAK			
Value	960	mg/m ³	500	ppm(V)
Short term exposure limit	1920	mg/m ³	1000	ppm(V)

Pregnancy group: S; Status: 2017; Remarks: SSc; OAW, FormalKT HU; INRS, NIOSH

Butanone

List	SUVA			
Type	MAK			
Value	590	mg/m ³	200	ppm(V)
Short term exposure limit	590	mg/m ³	200	ppm(V)

Skin resorption / sensibilisation: H; Pregnancy group: S; Status: 2017; Remarks: H B SSc; NS, OAWKT HU; INRS, NIOSH, OSHA

8.2. Exposure controls**General protective and hygiene measures**

Wash hands before breaks and after work.

Respiratory protection

Provide good ventilation of working area (local exhaust ventilation if necessary). At intensive and longer exposition use self-contained breathing apparatus. Full mask; Gas filterA. Multi-purpose filter ABEK

Hand protection

Appropriate Material	Butyl rubber		
Material thickness	0.5	mm	
Breakthrough time	> 8	h	
Appropriate Material	Fluoro carbon rubber - FKM		
Material thickness	0.4	mm	
Breakthrough time	> 8	h	
Appropriate Material	Polychloroprene		
Material thickness	0.5	mm	
Breakthrough time	appr. 2	h	

Eye protection

Tightly fitting safety glasses

Body protection

Fire-resistant protective clothing

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

Form liquid

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Colour	colourless			
Odour	alcohol-like			
Odour threshold				
Value	178			mg/m ³
pH value				
Value	7			
Concentration/H ₂ O	10	g/l		
Freezing point				
Value	-114			°C
Initial boiling point and boiling range				
Value	78			°C
Pressure	1013	hPa		
Flash point				
Value	12	to	13	°C
Upper/lower flammability or explosive limits				
Lower explosion limit	3.5	to	15	%(V)
Vapour pressure				
Value	59.0			hPa
Temperature	20	°C		
Density				
Value	0.81			g/cm ³
Temperature	20	°C		
Solubility in water				
Remarks	Completely miscible			
Solubility(ies)				
Temperature	20	°C		
Remarks	Miscible with organic solvents in all proportions			
Partition coefficient: n-octanol/water				
log Pow	-0.3			
Ignition temperature				
Value	425			°C
Decomposition temperature				
Value	>= 700			°C
Viscosity				
dynamic				
Value	1.2			mPa.s
Temperature	20	°C		
kinematic				
Value	1.52			mm ² /s
Temperature	20	°C		

9.2. Other information**Other information**

Forms explosive mixture with air are possible.

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

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Exothermic reaction with: Oxidising agents, Reducing agents, Acids, Alkaline metals, peroxides

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

Can react violent with oxygen rich (fire expediting) material. Risk of explosion. Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

10.4. Conditions to avoid

Sparks. Keep away from sources of heat and ignition. Flames

10.5. Incompatible materialsAlkaline metals, Strong oxidising agents, hydrogen peroxide (H₂O₂). Silvercompounds, sulphur, Reducing agents, Acids, peroxides**10.6. Hazardous decomposition products**

Flammable gases/vapours

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute oral toxicity**

ATE	214.5	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	

Acute oral toxicity (Components)**Ethanol**

Species	rat	
LD50	7060	mg/kg
Source	Toxicology and Applied Pharmacology. Vol. 16, Pg. 718, 1970.	

Ethanol

Species	rat	
LD50	10470	mg/kg

4-Methylpentan-2-one

Species	rat	
LD50	2080	mg/kg
Method	OECD 401	

Butanone

Species	rat	
LD50	4.29	mg/kg

Butanone

Species	rat	
LD50	3450	mg/kg

Acute dermal toxicity (Components)**4-Methylpentan-2-one**

Species	rat	
LD50	> 16000	mg/kg

Ethanol

Species	rabbit	
LD50	15800	mg/kg

Butanone

Species	rabbit	
LD50	> 8000	mg/kg

Acute inhalative toxicity (Components)

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4-Methylpentan-2-one

Species	rat			
LC50	>	2000		ppm(V)
Duration of exposure		4	h	

4-Methylpentan-2-one

Species	rat			
NOAEC		450		ppm(V)
Administration/Form	Vapors			

Ethanol

Species	rat			
LC50		30000		mg/m ³
Duration of exposure		4	h	
Administration/Form	Vapors			

Skin corrosion/irritation (Components)**Ethanol**

evaluation	non-irritant
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Serious eye damage/irritation (Components)**Ethanol**

evaluation	irritant
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Sensitization (Components)**4-Methylpentan-2-one**

Species	guinea pig
evaluation	non-sensitizing
Method	OECD 406

Butanone

Species	guinea pig
evaluation	non-sensitizing

SECTION 12: Ecological information**12.1. Toxicity****General information**

There is no data available on the product apart from the information given in this subsection.

Fish toxicity (Components)**4-Methylpentan-2-one**

Species	zebra fish (Brachydanio rerio)			
LC50	>	179		mg/l
Duration of exposure		96	h	
Method	OECD 203			

Daphnia toxicity (Components)**4-Methylpentan-2-one**

Species	Daphnia magna			
EC50	>	200		mg/l
Duration of exposure		48	h	

4-Methylpentan-2-one

Species	Daphnia magna			
NOEC	30	to	35	mg/l
Duration of exposure	21	d		
Method	OECD 211			

Bacteria toxicity (Components)

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4-Methylpentan-2-one

Species	Pseudomonas putida		
	275		mg/l
Duration of exposure	16	h	

12.2. Persistence and degradability**General information**

There is no data available on the product apart from the information given in this subsection.

Biodegradability (Components)**4-Methylpentan-2-one**

Value	83		%
Duration of test evaluation	28	d	
Method	Readily biodegradable		
	OECD 301		

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

Value	0.93	to	1.67	mg/g
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12.3. Bioaccumulative potential**General information**

There is no data available on the product apart from the information given in this subsection.

Partition coefficient: n-octanol/water

log Pow	-0.3
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12.4. Mobility in soil**General information**

There is no data available on the product apart from the information given in this subsection.

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

There is no data available on the product apart from the information given in this subsection.

Evaluation of persistence and bioaccumulation potential

The Substance doesn't meets PBT/vPvB-criteria

Evaluation of persistence and bioaccumulation potential (Components)**Ethanol**

The Substance doesn't meets PBT/vPvB-criteria

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

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. The product is easily volatile.

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

Disposal in compliance with local and national regulations.

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SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	D/E		
14.1. UN number	1170	1170	1170
14.2. UN proper shipping name	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) (Ethanol)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) (Ethanol)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) (Ethanol)
14.3. Transport hazard class(es)	3	3	3
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 3

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

SECTION 16: Other information

Hazard statements listed in Chapter 3

H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.

CLP categories listed in Chapter 3

Acute Tox. 4 Acute toxicity, Category 4
 Eye Irrit. 2 Eye irritation, Category 2
 Flam. Liq. 2 Flammable liquid, Category 2
 STOT SE 3 Specific target organ toxicity - single exposure, Category 3

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

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guarantee for any specific product properties and shall not establish a legally valid relationship.