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

1.1. Product identifier

Acid aceticum 98-100% glac

Item No. 20125000

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

Use of the substance/preparation

Chemical

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)

Skin Corr. 1A	H314
Flam. Liq. 3	H226
Eye Dam. 1	H318

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

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.

Precautionary statements

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

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P310	Immediately call a POISON CENTER or doctor.

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

contains Acetic acid

SECTION 3: Composition/information on ingredients

Hazardous ingredients

Acetic acid

CAS No.	64-19-7		
EINECS no.	200-580-7		
Registration no.	01-2119475328-30-XXXX		
Concentration	>= 90		%
Classification (Regulation (EC) No. 1272/2008)			
	Flam. Liq. 3	H226	
	Skin Corr. 1A	H314	

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

Eye Irrit. 2	H319	>= 10 < 25
Skin Corr. 1A	H314	>= 90
Skin Corr. 1B	H314	>= 25 < 90
Skin Irrit. 2	H315	>= 10 < 25

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

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

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. Heat. After inhalation of decomposition products: Inhale corticosteroid-dosing-aerosol immediately. In the event of symptoms take medical treatment.

After skin contact

Wash skin thoroughly with water (15 min.). Summon a doctor immediately. Causes severe burns.

After eye contact

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

After ingestion

Summon a doctor immediately. Do not induce vomiting. If swallowed, rinse mouth with water (only if the person is conscious). Let plenty of water be drunk in small gulps.

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

Chemical burn, Convulsions, Acidosis, bleeding vomiting

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 the event of a fire, toxic and combustible gases can be formed. Can build mixtures of gas and air which are capable of explosion.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use self-contained breathing apparatus. Wear full protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep away unprotected persons.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Advise water authority if spillage has entered water course or drainage system.

6.3. Methods and material for containment and cleaning up

Ensure adequate ventilation. Take up with absorbent material (eg sand, kieselguhr). Send in suitable containers for recovery or disposal.

6.4. Reference to other sections

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

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). Provide good room ventilation even at ground level (vapours are heavier than air). Handle and open container with care. Avoid formation of aerosols.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take action to prevent static discharges. Vapours can form an explosive mixture with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Provide acid-resistant floor. Polyethylene. Use PVC containers. Use teflon-coated containers and pinings. Use viton-coated containers and pinings.

Hints on storage assembly

Do not store with oxidizing agents. Do not store with alkalies.

Further information on storage conditions

Keep container tightly closed. Keep container in a well-ventilated place. Store in a dry place. Product is hygroscopic. Protect from frost.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Acetic acid

List	SUVA			
Type	MAK			
Value	25	mg/m³	10	ppm(V)
Short term exposure limit	50	mg/m³	20	ppm(V)

Pregnancy group: S; Status: 2017; Remarks: SSc; Auge, OAWKT HU & LungeKT HU; NIOSH, OSHA

8.2. Exposure controls

Exposure controls

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

General protective and hygiene measures

Keep away from food-stuffs, beverages and feed-stocks. At work do not eat, drink, smoke or take drugs. Take off immediately all contaminated clothing. Avoid contact with skin and eyes. Provide washing facilities at the place of work. Provide washing facilities at the place of work. Hold eye wash fountain available.

Respiratory protection

Breathing apparatus in the event of vapours. Breathing apparatus in the event of aerosol or mist formation. Gas filter E.

Hand protection

Gloves (acid-resistant)

Appropriate Material	Butyl rubber - Butyl		
Material thickness		0.5	mm
Breakthrough time	>=	8	h

Not suitable
Gloves of thick material
Leather gloves
Not suitable: gloves of natural latex
Not suitable: gloves of polychloroprene
Not suitable: gloves of nitrile rubber - NBR
Fluoro carbon rubber - FKM

Eye protection

Tightly fitting safety glasses

Body protection

Acid-resistant protective clothing

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	liquid
Colour	colourless
Odour	pungent

pH value

Value	2.5	
Concentration/H2O	50	g/l
Temperature	20	°C

Melting point

Value	16			°C

Initial boiling point and boiling range

Value	118			°C

Flash point

Value	40			°C

Upper/lower flammability or explosive limits

Lower explosion limit	4	to	17	%(V)

Vapour pressure

Value	16		hPa
Temperature	20	°C	

Density

Value	1.05		g/cm³
Temperature	20	°C	

Solubility in water

Remarks	Completely miscible

Solubility(ies)

Remarks	Completely miscible

Ignition temperature

Value	485		°C

Viscosity

dynamic

Value	1.14		mPa.s
Temperature	25	°C	

9.2. Other information

Other information

The product is not dangerous for explosions. Forms esplosive mixture with air are possible.

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

Oxidising agents

10.4. Conditions to avoid

Heat. Flames. Sparks

10.5. Incompatible materials

Violent reactions with concentrated alkalies and oxidising agents. Reactions with light metals. Reactions with alcohols. Reaction with nitric acid.

10.6. Hazardous decomposition products

Acetic acid, Flammable gases/vapours, In the event of fire the following can be released: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity (Components)

Acetic acid

Species	rat		
LD50		3310	mg/kg

Acute dermal toxicity

ATE		1'112	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)		

Acute dermal toxicity (Components)

Acetic acid

Species	rabbit		
LD50		1112	mg/kg
Source	Sigma/Aldrich		

Acute inhalative toxicity (Components)

Acetic acid

Species	rat		
LC50		11.4	mg/l
Duration of exposure		4	h

Acetic acid

Species	mouse		
LC50		5620	ppm(V)
Duration of exposure		1	h
Source	Sigma/Aldrich		

Acetic acid

LC50	>	40	mg/l
Duration of exposure		4	h

Skin corrosion/irritation

Remarks: Strong corrosive action on the skin and mucous membrane.

Serious eye damage/irritation

Remarks: Strong corrosive action on the skin and mucous membrane.

Sensitization

Remarks: May cause sensitization by skin contact.

Subacute, subchronic, chronic toxicity

Remarks: Repeated absorption/exposure may cause disorder of the kidneys.

Experience in practice

Perforation of gullet and stomach. May cause sensitization by inhalation and skin contact. Ingestion of aqueous solution causes burns in: Mouth. Throat

SECTION 12: Ecological information

12.1. Toxicity

Fish toxicity

Species	Bluegill (Lepomis macrochirus)		
LC50		75	mg/l
Duration of exposure		96	h
Species	Fathead minnow (Pimephales promelas)		
		88	mg/l

Fish toxicity (Components)

Acetic acid

Species	rainbow trout (Oncorhynchus mykiss)		
LC50	> 300.8		mg/l
Duration of exposure	96	h	
Method	OECD 203		

Daphnia toxicity

Species	Daphnia magna		
LC50	47		mg/l
Duration of exposure	24	h	

Daphnia toxicity (Components)

Acetic acid

Species	Daphnia magna		
EC50	47		mg/l
Duration of exposure	24	h	
Source	Merck KGaA Safety Data Sheet		

Acetic acid

Species	Daphnia magna		
EC50	> 300.82		mg/l
Duration of exposure	48	h	
Method	OECD 202		
Source	Sigma/Aldrich		

Algae toxicity (Components)

Acetic acid

Species	Scenedesmus quadricauda		
IC5	4000		mg/l
Duration of exposure	16	h	

Bacteria toxicity (Components)

Acetic acid

Species	Pseudomonas putida		
EC5	2850		mg/l
Duration of exposure	16	h	

Acetic acid

Species	Photobacterium phosphoreum		
EC50	11		mg/l
Duration of exposure	15	min	

12.2. Persistence and degradability

Biodegradability

Value	99		%
Duration of test	30	d	
Remarks	The product is readily biodegradable according to OECD criteria.		

Biodegradability (Components)

Acetic acid

Value	99		%
Duration of test	30	d	
evaluation	Readily biodegradable		

Acetic acid

Value	95		%
Duration of test	5	d	
Method	OECD 302B/ISO 9888/EEC 88/302,C		

Biochemical oxygen demand (BOD5) (Components)

Acetic acid

Value	880	mg/g
Duration of test	5 d	
Source	Sigma/Aldrich	

12.3. Bioaccumulative potential

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

Acetic acid

log Pow	-0.17	
Temperature	25	°C
Source	Sigma/Aldrich	

12.6. Other adverse effects

General information / ecology

Harmful to aquatic organisms. The product causes changes in the pH value in the test system. The result relates to the unneutralized sample. Product is slightly hazardous to water. Do not allow undiluted product or large quantities of 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

Dispose of as unused product.

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	2789	2789	2789
14.2. UN proper shipping name	ACETIC ACID, GLACIAL	ACETIC ACID, GLACIAL	ACETIC ACID, GLACIAL
14.3. Transport hazard class(es)	8	8	8
Subsidiary risk	3	3	3
Label			
14.4. Packing group	II	II	II
Limited Quantity	1 l		
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 1
Remarks	Classification according to Annex 4 VwVwS

SECTION 16: Other information

Hazard statements listed in Chapter 3

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.

CLP categories listed in Chapter 3

Flam. Liq. 3	Flammable liquid, Category 3
Skin Corr. 1A	Skin corrosion, Category 1A

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.