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)

Flam. Liq. 3	H226
Skin Corr. 1A	H314
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.
P310	Immediately call a POISON CENTER or doctor.
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 *** acetic acid … %

2.3. Other hazards

The Substance does not meet PBT-criteria. This substance does not meet the vPvB-criteria. This substance does not have endocrine disrupting properties with respect to humans. This substance does not have endocrine disrupting properties with respect to non-target organisms.

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 %

ATE dermal 1’112 mg/kg

Additional remarks:

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

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. 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; Remarks: SSc; OAW Auge; NIOSH OSHA

Derived No/Minimal Effect Levels (DNEL/DMEL)

acetic acid … %

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	25	mg/m³

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	25	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	General Population	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	25	mg/m³

Predicted No Effect Concentration (PNEC)

acetic acid … %

Type	Soil	
Concentration	0.478	mg/kg

Type	Saltwater	
Concentration	0.3058	mg/l

Type	Freshwater	
Concentration	3.058	mg/l

Type	Marine sediment

Concentration	1.136	mg/kg
Type	Sediment	
Concentration	11.36	mg/kg
Type	Sewage treatment plant (STP)	
Concentration	85	mg/l
Conditions	Intermittend	
Concentration	30.58	mg/l

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

Short term: filter apparatus, Filter A; Short term: filter apparatus, filter E; At intensive and longer exposition use self-contained breathing apparatus. EN 14387

Hand protection ***

The glove material must be sufficient impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well ventilated location.

Appropriate Material	Butyl rubber - Butyl		
Material thickness		0.5	mm
Breakthrough time	>=	8	h
Appropriate Material	Polychloroprene		
Material thickness		0.5	
Breakthrough time	>	8	h
Appropriate Material	Fluoro carbon rubber - FKM		
Material thickness		0.4	mm
Breakthrough time	>	8	h
Appropriate Material	PVC		
Material thickness		0.5	mm
Breakthrough time	>	8	h

Hand protection must comply with EN 374.

Eye protection

Safety glasses with side protection shield; Eye protection must comply with EN 166.

Body protection

Acid-resistant protective clothing

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	of acetic acid

Melting point

Value	16.7	°C

Pressure		1013	hPa		

Boiling point or initial boiling point and boiling range

Value		118			°C
Pressure		1013	hPa		

Upper and lower explosive limits

Lower explosion limit		4.0	to	19.9	%(V)

Flash point

Value		39			°C
Pressure		1013	hPa		
Method	closed cup				

Ignition temperature

Value		463			°C

pH value

Value	<	2			

Viscosity

dynamic

Value		1.015			mPa.s
Temperature		25	°C		

Solubility(ies)

Remarks	Completely miscible				

Vapour pressure

Value		15			hPa
Temperature		20	°C		

Density and/or relative density

Value		1.05	to	1.07	g/cm³

9.2. Other information

Solubility in water

Value		602.9			g/l
Temperature		25	°C		
Remarks	soluble				

Other information

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

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity (Components)

acetic acid … %

Species	rat		
LD50		3310	mg/kg

acetic acid … %

Species	rat		
LD50		3530	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

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	

acetic acid … %

Species	rat			
LC50	>	40		mg/l
Duration of exposure		4	h	

Skin corrosion/irritation (Components)

acetic acid … %

Species	rabbit
evaluation	strongly corrosive

Serious eye damage/irritation (Components)

acetic acid … %

Species	rabbit
evaluation	irritant - risk of serious damage to eyes

Sensitization (Components)

acetic acid … %

Remarks	No data available.

Subacute, subchronic, chronic toxicity (Components)

acetic acid … %

Remarks	No data available.

Mutagenicity (Components)

acetic acid … %

evaluation	No experimental indications on genotoxicity in vivo found.
Method	OECD 474

acetic acid … %

Species	mammal, species unspecified
evaluation	No experimental information on genotoxicity in vitro available.
Method	OECD 476

Carcinogenicity (Components)

acetic acid … %

Remarks	negative on animals

Specific Target Organ Toxicity (STOT) (Components)

acetic acid … %

Remarks	Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties with respect to humans

This substance does not have endocrine disrupting properties with respect to humans.

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 (Components)

acetic acid … %

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

Daphnia toxicity (Components)

acetic acid … %

Species	Daphnia magna		
EC50	47		mg/l
Duration of exposure	24	h	

acetic acid … %

Species	Daphnia magna		
EC50	> 300.82		mg/l
Duration of exposure	48	h	
Method	OECD 201		

Algae toxicity (Components)

acetic acid … %

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

acetic acid … %

Species	Skeletonema costatum		
EC50	> 300.82		mg/l
Duration of exposure	72	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	

acetic acid … %

Species	Pseudomonas putida		
EC10	1000		mg/l
Duration of exposure	0.5	h	

12.2. Persistence and degradability

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	

12.3. Bioaccumulative potential

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

acetic acid … %

log Pow	-0.17	
Temperature	25	°C

12.4. Mobility in soil

Mobility in soil (Components)

acetic acid … %

Mobile in soils

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment ***

The Substance does not meet PBT-criteria.
This substance does not meet the vPvB-criteria.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the envrionment

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. 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 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

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

CLP categories listed in Chapter 3

Eye Dam. 1	Serious eye damage, Category 1
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.