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

1.1. Product identifier

Acid hydrochloricum dil 10%

Item No. 20137100

Substance / product identification

UFI WVN0-W1UU-QV1D-8AJV

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)

Met. Corr. 1	H290
Skin Corr. 1A	H314
Eye Dam. 1	H318
STOT SE 3	H335

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 ***

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

Precautionary statements ***

P234	Keep only in original packaging.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

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.

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

contains *** hydrochloric acid … %

2.3. Other hazards

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients ***

Hazardous ingredients *

hydrochloric acid … %

CAS No. 7647-01-0
EINECS no. 231-595-7
Registration no. 01-2119484862-27-XXXX
Concentration >= 10 < 20 %
Classification (Regulation (EC) No. 1272/2008)

STOT SE 3	H335
Met. Corr. 1	H290
Skin Corr. 1A	H314
Eye Dam. 1	H318

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

Eye Irrit. 2	H319	>= 10 < 25 %
Skin Corr. 1B	H314	>= 25 %
Skin Irrit. 2	H315	>= 10 < 25 %
STOT SE 3	H335	>= 10 %

ATE oral 900 mg/kg
Additional remarks:
CLP Regulation (EC) No 1272/2008, Annex VI, Note B

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

General information

Remove contaminated, soaked clothing immediately and dispose of safely.

After inhalation

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.

After eye contact

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

After ingestion

Rinse out mouth and give plenty of water to drink. Ensure supply of fresh air. Summon a doctor immediately.

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.

5.2. Special hazards arising from the substance or mixture

Hydrogen chloride (HCl); Under certain fire conditions the smoke may contain other toxic compounds.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

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

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

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

6.3. Methods and material for containment and cleaning up

Neutralize. When picked up, treat material as prescribed under Section 13 "Disposal". Ensure adequate ventilation.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep container tightly closed.

Advice on protection against fire and explosion

The product is not combustible.

7.2. Conditions for safe storage, including any incompatibilities

Recommended storage temperature

Value	<	25	°C

Requirements for storage rooms and vessels

Keep tightly closed in a dry and cool place.

Hints on storage assembly

Not required.

Storage classes

Storage class according to TRGS 510	8B	Non-combustible corrosive hazardous

		substances
Storage category (Switzerland)	8	Caustic and corrosive substances

Further information on storage conditions

Keep container tightly closed.

SECTION 8: Exposure controls/personal protection ***

8.1. Control parameters

Derived No/Minimal Effect Levels (DNEL/DMEL)

hydrochloric acid … %

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	15	mg/m³

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	8	mg/m³

Predicted No Effect Concentration (PNEC)

hydrochloric acid … %

Type of value	PNEC	
Type	Freshwater	
Concentration	36	µg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	36	µg/l

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	36	µg/l

Type of value	PNEC	
Type	Soil	
Concentration	0.036	mg/kg

Type of value	PNEC	
Conditions	Intermittend	
Concentration	45	µg/l

8.2. Exposure controls

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.

Respiratory protection

Short term: filter apparatus; At intensive and longer exposition use self-contained breathing apparatus.
Short term: filter apparatus, combination filter E-P2

Hand protection

Gloves (acid-resistant)			
Appropriate Material	Polychloroprene		
Material thickness		0.5	mm
Breakthrough time	>=	8	h
Gloves (acid-resistant)			
Appropriate Material	nitrile rubber - NBR		
Material thickness		0.35	mm
Breakthrough time	>=	8	h
Gloves (acid-resistant)			
Appropriate Material	Butyl rubber		
Material thickness		0.5	mm
Breakthrough time	>=	8	h
Gloves (acid-resistant)			
Appropriate Material	Fluoro carbon rubber - FKM		
Material thickness		0.4	mm
Breakthrough time	>=	8	h
Gloves (acid-resistant)			
Appropriate Material	PVC		
Material thickness		0.5	mm
Breakthrough time	>=	8	h

Eye protection

Tightly fitting safety glasses

Body protection

Protective clothing

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless, clear
Odour	pungent

Melting point

Remarks	not determined

Boiling point or initial boiling point and boiling range

Value	85	°C

Flammability

Not self inflammable

Flash point

Value	°C	
Remarks	Not applicable	

pH value

Value	1	
Temperature	20	°C

Vapour pressure

Value	23		hPa
Temperature	20	°C	

Density and/or relative density

Value	appr. 1.1		g/cm³
Temperature	20	°C	

9.2. Other information

Solubility in water

Remarks	Completely miscible

Other information

The product is not dangerous for explosions.

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals.

10.2. Chemical stability

No decomposition if stored and applied as directed. To avoid thermal decomposition, do not overheat.

10.3. Possibility of hazardous reactions

Possible incompatibility with materials lister under section 10.5.

10.4. Conditions to avoid

No decomposition if stored and applied as directed.

10.5. Incompatible materials

Corrosive to metals. Violent reactions with concentrated alkalies and oxidising agents.

10.6. Hazardous decomposition products

Hydrogen chloride (HCl), Chlorine

Other information

When diluting, add acids to water, never the other way around.

SECTION 11: Toxicological information

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

Acute oral toxicity

ATE	8'877.4906	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	

Acute oral toxicity (Components)

hydrochloric acid … %

Species	rabbit	
LD50	900	mg/kg
Remarks	Ingestion causes burns of the upper digestive and respiratory tracts.	

hydrochloric acid … %

Species	rat	
LD50	2222	mg/kg

Acute inhalative toxicity (Components)

hydrochloric acid … %

Reference substance	hydrogen chloride		
Species	rat		
LC50	31000		ppm(V)
Duration of exposure	5	min	
Administration/Form	Vapors		
Source	NCBI Bookshelf 1998		

hydrochloric acid … %

Reference substance	hydrogen chloride

Species	mouse		
LC50	11200		ppm(V)
Duration of exposure	5	min	
Administration/Form	Vapors		
Source	NCBI Bookshelf 1998		

hydrochloric acid … %

Reference substance	hydrogen chloride		
Species	rat		
LC50	5600		ppm(V)
Duration of exposure	30	min	
Administration/Form	Vapors		
Source	NCBI Bookshelf 1998		

hydrochloric acid … %

Reference substance	hydrogen chloride		
Species	mouse		
LC50	2100		ppm(V)
Duration of exposure	30	min	
Administration/Form	Vapors		
Source	NCBI Bookshelf 1998		

hydrochloric acid … %

Reference substance	hydrogen chloride		
Species	guinea pig		
LC50	2519		ppm(V)
Duration of exposure	30	min	
Administration/Form	Vapors		
Source	Kirsch and Drabk 1982		

hydrochloric acid … %

Species	rat (male)		
LC50	45.6		mg/l
Duration of exposure	5	min	

hydrochloric acid … %

Species	rat		
NOAEC	15		mg/m³

Skin corrosion/irritation

Remarks Corrosive action on the skin and mucous membrane.

Skin corrosion/irritation (Components)

hydrochloric acid … %

Species	rabbit		
Duration of exposure	1	h	
Method	OECD 404		
Remarks	Corrosive		

Serious eye damage/irritation

Remarks strongly corrosive

Serious eye damage/irritation (Components)

hydrochloric acid … %

Species	rabbit eye
evaluation	strongly corrosive
Method	OECD 405

Sensitization

Remarks No sensitation effect known.

Sensitization (Components)

hydrochloric acid … %

Species	guinea pig
Remarks	No sensitation effect known.

Subacute, subchronic, chronic toxicity (Components)

hydrochloric acid … %

Remarks	No data available

Mutagenicity (Components)

hydrochloric acid … %

evaluation	No experimental information on genotoxicity in vitro available.

Reproduction toxicity (Components)

hydrochloric acid … %

Remarks	No indications of toxic effects were observed in reproduction studies in animals.

Carcinogenicity (Components)

hydrochloric acid … %

Remarks	negative on animals

Specific Target Organ Toxicity (STOT) (Components)

hydrochloric acid … %

Single exposure

evaluation	May cause respiratory irritation. Route of exposure inhalative Organs: Respiratory tract

11.2 Information on other hazards

Endocrine disrupting properties with respect to humans

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

Experience in practice

After Swallowing: burns in mouth, throat, oesophagus and gastrointetinal tract. Risk of perforation in the oesophagus and stomach.

Other information

The toxiclogical data are those of the pure product.

SECTION 12: Ecological information ***

12.1. Toxicity

Fish toxicity

Reference substance	hydrochloric acid … %	
Species	golden orfe (Leuciscus idus)	
LC50	862	mg/l

Fish toxicity (Components)

hydrochloric acid … %

Species	Gambusia affinis	
LC50	282	mg/l
Duration of exposure	96 h	

hydrochloric acid … %

Species	Bluegill (Lepomis macrochirus)	
LC50	20.5	mg/l
Duration of exposure	24 h	

Daphnia toxicity (Components)

hydrochloric acid … %

Species	Daphnia magna		
EC50	0.45		mg/l
Duration of exposure	48	h	
Method	OECD 201		

Algae toxicity (Components)

hydrochloric acid … %

Species	Chlorella vulgaris		
ErC50	0.73		mg/l
Duration of exposure	72	h	
Method	OECD 201		

Bacteria toxicity (Components)

hydrochloric acid … %

Species	activated sludge		
EC50	0.23		mg/l
Duration of exposure	3	h	
Method	OECD 209		

12.2. Persistence and degradability

Biodegradability (Components)

hydrochloric acid … %

Remarks: Inorganic product, cannot be eliminated from the water by biological purification processes.

12.4. Mobility in soil

Mobility in soil (Components)

hydrochloric acid … %

Will not adsorb on soil.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment ***

The product contains no PBT substances
The product contains no vPvB substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the envrionment

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. 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 causes changes in the pH value in the test system. The result relates to the unneutralized sample.

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
Tunnel restriction code	E		
14.1. UN number	1789	1789	1789
14.2. UN proper shipping name	HYDROCHLORIC ACID (hydrochloric acid … %)	HYDROCHLORIC ACID (hydrochloric acid … %)	HYDROCHLORIC ACID (hydrochloric acid … %)
14.3. Transport hazard class(es)	8	8	8
Label			
14.4. Packing group	III	III	III
Limited Quantity	5 l		
Transport category	3		

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

SECTION 16: Other information

Hazard statements listed in Chapter 3

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

CLP categories listed in Chapter 3

Eye Dam. 1	Serious eye damage, Category 1
Met. Corr. 1	Substance or mixture corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion, Category 1A
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

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