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

1.1. Product identifier

L-Milchsäure 90%

Item No. 20375000

Substance / product identification

UFI 5RAW-V0V1-M00N-0DTK

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. 1C	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 ***

H314	Causes severe skin burns and eye damage.

Precautionary statements ***

P264.1	Wash hands thoroughly after handling.
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.
P501.3	Disposal in compliance with local and national regulations.

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

contains l-(+)-lactic 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

l-(+)-lactic acid

CAS No.	79-33-4		
EINECS no.	201-196-2		
Registration no.	01-2119474164-39-0000/-0013		
Concentration	>= 50		%
Classification (Regulation (EC) No. 1272/2008)			
	Skin Corr. 1C	H314	
	Eye Dam. 1	H318	

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Summon a doctor immediately.

After inhalation

Remove the casualty into fresh air and keep him calm.

After skin contact

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

After eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice. Remove contact lenses

After ingestion

Rinse out mouth and give plenty of water to drink. Do not induce vomiting. Summon a doctor immediately.

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

Abdominal pains, Nausea, Burn, irritant - risk of serious damage to eyes, Irritating to respiratory system.

4.3. Indication of any immediate medical attention and special treatment needed

Hints for the physician / treatment

Treat symptomatically. If necessary, give oxygen. Keep under medical supervision for at least 48 hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Dry chemical extinguisher, Foam, Carbon dioxide

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Exposure to decomposition products may cause a health hazard.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use personal protective clothing. Use self-contained breathing apparatus. Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses.

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 people away and stay on the upwind side.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Place in a suitable container. Rinse away rest with plenty of water. Clean up affected area.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

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). Avoid inhaling dusts/ billows/ steams. For personal protection see Section 8. Smoking, eating and drinking should be prohibited in application area. Avoid contact with skin, eyes and clothing.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep tightly closed in a dry and cool place. Keep container tightly closed in a well-ventilated place.

Storage classes

Storage class according to TRGS 510	8B	Non-combustible corrosive hazardous substances
Storage category (Switzerland)	8	Caustic and corrosive substances

SECTION 8: Exposure controls/personal protection

8.2. Exposure controls

General protective and hygiene measures

At work do not eat, drink, smoke or take drugs. Wash hands and face after work. Wash contaminated clothing before reuse.

Respiratory protection

If vapours occur, use filter type A (= against vapours of organic compounds) according to EN 14387. Breathing apparatus in the event of aerosol, mist or fume formation.

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	>	480	min

Hand protection must comply with EN 374.

Appropriate Material	Polychloroprene		
Material thickness		0.5	mm
Breakthrough time	>	480	min

Hand protection must comply with EN 374.

Appropriate Material	PVC		
Material thickness		0.5	mm
Breakthrough time	>	480	min

Hand protection must comply with EN 374.

Appropriate Material	nitrile rubber - NBR		
Material thickness		0.35	mm
Breakthrough time	>	480	min

Hand protection must comply with EN 374.

Eye protection

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

Body protection

Clothing as usual in the chemical industry. Boots

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state liquid

Colour clear, colorless, light yellow

Odour characteristic

Melting point

Remarks Not applicable

Boiling point or initial boiling point and boiling range

Value	120	to	130	°C

Flammability

No data available

Upper and lower explosive limits

Remarks No data available

Flash point

Value		°C
Remarks	Not applicable	

Decomposition temperature

Value	>	200	°C

pH value

Value	<	1.2	
Temperature		25	°C

Viscosity

dynamic

Value	5	to	60	mPa.s
Temperature	25	°C		

Vapour pressure

Remarks Not applicable

Density and/or relative density

Value	1.1	to	1.3	g/cm³

9.2. Other information

Solubility in water

Remarks soluble

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

Stable under recommended storage and handling conditions (see section 7).

10.3. Possibility of hazardous reactions

No decomposition if stored and applied as directed.

10.4. Conditions to avoid

Protect from heat and direct sunlight. Strong UV radiation. To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Strong oxidising agents, Bases, Acids, Metals

10.6. Hazardous decomposition products

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)

l-(+)-lactic acid

Species	rat (female)		
LD50		3543	mg/kg
Method	US EPA OPP 81-1		

l-(+)-lactic acid

Species	Rats (male/female)		
LD50		4239.5	mg/kg
Method	OECD 401		

Acute dermal toxicity (Components)

l-(+)-lactic acid

Species	rabbit		
LD50	>	2000	mg/kg
Method	EPA		

Acute inhalative toxicity (Components)

l-(+)-lactic acid

Species	rat		
LC50	>	7.94	mg/l
Duration of exposure		4	h
Administration/Form	Dust/Mist		
Method	OECD 403		

Remarks Corrosive

Skin corrosion/irritation (Components)

l-(+)-lactic acid

Species	rabbit
Method	OECD 404
Remarks	Irritating to skin.

l-(+)-lactic acid

Duration of exposure	1	h
evaluation	corrosive	

Serious eye damage/irritation (Components)

l-(+)-lactic acid

Species	dog	
Duration of exposure	10	s
evaluation	irritant - risk of serious damage to eyes	
Method	OECD 438	

Sensitization (Components)

l-(+)-lactic acid

evaluation non-sensitizing

Mutagenicity (Components)

l-(+)-lactic acid

evaluation No experimental indications on genotoxicity in vivo found.

Reproduction toxicity (Components)

l-(+)-lactic acid

evaluation No negative effects

Carcinogenicity (Components)

l-(+)-lactic acid

evaluation No negative effects

Specific Target Organ Toxicity (STOT) (Components)

l-(+)-lactic acid

Remarks Not applicable

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.

SECTION 12: Ecological information ***

12.1. Toxicity

Fish toxicity (Components)

l-(+)-lactic acid

Species	rainbow trout (Oncorhynchus mykiss)		
LC50	130		mg/l
Duration of exposure	96	h	
Method	EPA-660/3-75-009		

Daphnia toxicity (Components)

l-(+)-lactic acid

Species	Daphnia magna	
EC50	130	mg/l

Duration of exposure	48	h	
Method	OECD 202		

Algae toxicity (Components)

l-(+)-lactic acid

Species	Pseudokirchneriella subcapitata		
EC50	> 2.8		g/l
Duration of exposure	72	h	

l-(+)-lactic acid

Species	Raphidocelis subcapitata		
EC50	> 3500		mg/l
Duration of exposure	72	h	
Method	OECD 201		

Bacteria toxicity (Components)

l-(+)-lactic acid

LC50	> 100		mg/l
Duration of exposure	3	h	

l-(+)-lactic acid

Species	activated sludge		
EC50	> 88.2		mg/l
Duration of exposure	3	h	
Method	OECD 209		

12.2. Persistence and degradability

Biodegradability (Components)

l-(+)-lactic acid

evaluation: Readily biodegradable

12.3. Bioaccumulative potential

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

l-(+)-lactic acid

log Pow	-0.54
Method	OECD 107

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.

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

Completely emptied packagings can be given for recycling.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	E		
14.1. UN number	3265	3265	3265
14.2. UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (l-(+)-lactic acid)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (l-(+)-lactic acid)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (l-(+)-lactic 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

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
Skin Corr. 1C	Skin corrosion, Category 1C

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.