

Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

Print date: 18.08.25

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

1.1. Product identifier

Acid formicicum 25%

Item No. 20225100

Substance / product identification

UFI 42DV-W8NT-XV13-7MG9

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 sdb@haenseler.ch

person responsible
for this SDS

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)

Acute Tox. 4 H332

Skin Corr. 1B 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 ***

H332 Harmful if inhaled.

H314 Causes severe skin burns and eye damage.

EUH071 Corrosive to the respiratory tract.

Precautionary statements ***

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

Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

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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 *** formic 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 *******formic acid ... %**

CAS No.	64-18-6
EINECS no.	200-579-1
Registration no.	01-2119491174-37-XXXX
Concentration	>= 25 < 36 %
Classification (Regulation (EC) No. 1272/2008)	
Flam. Liq. 3	H226
Met. Corr. 1	H290
Acute Tox. 4	H302
Eye Dam. 1	H318
Acute Tox. 3	H331
Skin Corr. 1A	H314

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

Eye Irrit. 2	H319	>= 2 < 10 %
Skin Corr. 1A	H314	>= 90 %
Skin Corr. 1B	H314	>= 10 < 90 %
Skin Irrit. 2	H315	>= 2 < 10 %
Eye Dam. 1	H318	>= 10 %

ATE	oral	730	mg/kg
cATpE	inhalative, Dust/Mist	0.5	mg/l
ATE	inhalative, Vapors	7.85	mg/l

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**

Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

Print date: 18.08.25

General information

Remove affected person from danger area, lay him down. Remove contaminated, soaked clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid

After inhalation

Ensure supply of fresh air. If the patient is likely to become unconscious, place and transport in stable sideways position. If breathing is irregular or stopped, administer artificial respiration. Summon a doctor immediately.

After skin contact

After contact with skin, wash immediately with plenty of water. Take medical treatment.

After eye contact

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

After ingestion

Rinse out mouth and give plenty of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting. Summon a doctor immediately.

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

Irritation of respiratory organs, Irritation of mucosa, Acidosis, Chemical burn

4.3. Indication of any immediate medical attention and special treatment needed**Hints for the physician / treatment**

Symptomatic treatment (decontamination, vital functions), no specific antidote known.

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

Carbon monoxide (CO); Can build mixtures of gas and air which are capable of explosion.

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

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

Other information

Collect contaminated fire-fighting water separately, must not be discharged into the drains.

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

Wear protective equipment. Keep away unprotected persons. Respiratory protection

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Suppress gases/vapours/mists with water spray jet. 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. When picked up, treat material as prescribed under Section 13 "Disposal". Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder).

Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

Print date: 18.08.25

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. Keep container tightly closed.

Advice on protection against fire and explosion

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

7.2. Conditions for safe storage, including any incompatibilities**Recommended storage temperature**

Value < 30 °C

Requirements for storage rooms and vessels

Provide acid-resistant floor. Do not use light metal drums. Suitable materials: Polyethylene/Polypropylene. Keep only in original packaging.

Hints on storage assembly

Do not store together with: Alkalies, Do not store with oxidizing agents.

Storage classes

Storage class according to TRGS 510	3	Flammable liquid
Storage category (Switzerland)	8	Caustic and corrosive substances

Further information on storage conditions

Keep container in a well-ventilated place. Keep container tightly closed. Protect from light.

SECTION 8: Exposure controls/personal protection *****8.1. Control parameters****Exposure limit values *******formic acid ... %**

List	SUVA			
Type	MAK			
Value	9,5	mg/m ³	5	ppm(V)
Short term exposure limit	19	mg/m ³	10	ppm(V)
Pregnancy group: S; Remarks: SSc; Auge & Haut, OAWKT AN; NIOSH, OSHA				

Derived No/Minimal Effect Levels (DNEL/DMEL)**formic acid ... %**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	19	mg/m ³

Type of value	Derived No Effect Level (DNEL)
Reference group	Worker
Duration of exposure	Acute

Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

Print date: 18.08.25

Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	19	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	9.5	mg/m ³

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	9.5	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	9.5	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	9.5	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	3	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	3	mg/m ³

Predicted No Effect Concentration (PNEC)**formic acid ... %**

Type of value	PNEC	
Type	Water	
Concentration	2	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0.2	mg/l

Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

Print date: 18.08.25

Type of value	PNEC	
Type	Whole substance	
Concentration	1	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	13.4	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	1.34	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	1.5	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	7.2	mg/kg

8.2. Exposure controls

General protective and hygiene measures

Keep away from food-stuffs, beverages and feed-stocks. Wash hands and face before breaks and after work. Avoid contact with skin and eyes. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols.

Respiratory protection

Breathing apparatus in the event of aerosol or mist formation. Full mask, filter B2; combination filter AXBEK (EN 14387)

Hand protection

Gloves (acid-resistant)

Hand protection must comply with EN 374.

Gloves

Appropriate Material	Polychloroprene
Material thickness	0.5 mm
Breakthrough time	>= 8 h

Gloves

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

Gloves

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

Not suitable: gloves made of thick material

Not suitable: leather gloves

Eye protection

Tightly fitting safety glasses; Face shield

Body protection

Acid-resistant protective clothing

SECTION 9: Physical and chemical properties ***

9.1. Information on basic physical and chemical properties

Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

Print date: 18.08.25

Physical state

Liquid

Colour

colourless to yellowish

Odour

pungent

Melting point

Remarks

not determined

Freezing point

Value

-19

to

-10

°C

Boiling point or initial boiling point and boiling range

Value

107.3

°C

Upper and lower explosive limits

Lower explosion limit

14.9

to

47.6

% (V)

Flash point

Value

65

°C

Method

DIN 51755

Source

Literature value

Ignition temperature

Value

500

°C

Method

DIN 51794

pH value

Value

1

to

2

Concentration/H₂O

100

%

Viscosity

Value

1.4

mPa.s

Temperature

20

°C

Partition coefficient n-octanol/water (log value)

log Pow

-1.9

Temperature

23

°C

Vapour pressure ***

Value

21.19

hPa

Temperature

20

°C

Source

Literature value

Value

129

hPa

Temperature

55

°C

Density and/or relative density

Value

1.19

g/cm³

Temperature

20

°C

9.2. Other information**Solubility in water**

Remarks

Completely miscible

Auto-ignition temperature

Remarks

not determined

Explosive properties

evaluation

yes

Oxidising properties

evaluation

None known

Other information

Not oxidising

Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

Print date: 18.08.25

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

To avoid thermal decomposition, do not overheat.

10.3. Possibility of hazardous reactions

Possible incompatibility with materials listed under section 10.5.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat. Sparks. Flames. Protect from direct sunlight.

10.5. Incompatible materials

Strong oxidising agents, Aluminium, Alkalies, Alkalis, hydrogen peroxide (H₂O₂), aluminium (Al),
Reaction with Sulfuric acid.

10.6. Hazardous decomposition products

Carbon monoxide

SECTION 11: Toxicological information

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

Acute oral toxicity

ATE	2'920	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	

Acute oral toxicity (Components)

formic acid ... %

Species	rat	
LD50	730	mg/kg
Method	OECD 401	
Remarks	Ingestion causes burns of the upper digestive and respiratory tracts.	

Acute dermal toxicity (Components)

formic acid ... %

Remarks	No data available
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Acute inhalational toxicity

ATE	31.4	mg/l
Administration/Form	Vapors	
Method	calculated value (Regulation (EC) No. 1272/2008)	
ATE	2	mg/l
Administration/Form	Dust/Mist	
Method	calculated value (Regulation (EC) No. 1272/2008)	

Acute inhalative toxicity (Components)

formic acid ... %

LC50	7.85	mg/l
Duration of exposure	4	h
Administration/Form	Vapors	
Method	OECD 403	
Remarks	Strong corrosive action on the skin and mucous membrane.	

Skin corrosion/irritation

Remarks	Corrosive action on the skin and mucous membrane.
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Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

Print date: 18.08.25

Skin corrosion/irritation (Components)**formic acid ... %**

Species	rabbit
evaluation	corrosive
Method	OECD 404
Remarks	Strong corrosive action on the skin and mucous membrane.

Serious eye damage/irritation

Remarks	strongly corrosive
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Serious eye damage/irritation (Components)**formic acid ... %**

evaluation	irritant - risk of serious damage to eyes
Remarks	Risk of serious damage to eyes.

Sensitization (Components)**formic acid ... %**

Species	guinea pig
evaluation	non-sensitizing
Method	OECD 406

Mutagenicity (Components)**formic acid ... %**

evaluation	No mutagenicity in the Ames-test.
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formic acid ... %

evaluation	No experimental information on genotoxicity in vitro available.
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Reproduction toxicity (Components)**formic acid ... %**

Route of exposure	oral
Species	rat (male)
Dose	676 mg/kg
Method	OECD 416
Remarks	No indications of toxic effects were observed in reproduction studies in animals.

Carcinogenicity (Components)**formic acid ... %**

Remarks	negative on animals
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Specific Target Organ Toxicity (STOT) (Components)**formic acid ... %****Single exposure**

evaluation	No indications of STOT effects are available.
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formic acid ... %**Repeated exposure**

evaluation	No indications of STOT effects are available.
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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

Ingestion of aqueous solution causes burns in: Mouth. Throat. Perforation of gullet and stomach.

Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

Print date: 18.08.25

SECTION 12: Ecological information

12.1. Toxicity

Fish toxicity (Components)

formic acid ... %

Species	zebra fish (<i>Brachydanio rerio</i>)	
LC50	130	mg/l
Duration of exposure	96	h
Method	OECD 203	
Remarks	Test conducted with a similar formulation.	

formic acid ... %

Species	golden orfe (<i>Leuciscus idus</i>)	
LC50	68	mg/l
Duration of exposure	96	h
Method	DIN 38412 T.15	

Daphnia toxicity (Components)

formic acid ... %

Species	Daphnia magna	
EC50	365	mg/l
Duration of exposure	48	h
Method	OECD 201	
Remarks	Test conducted with a similar formulation.	

formic acid ... %

Species	Daphnia magna	
NOEC	>= 102	mg/l
Duration of exposure	21	d
Method	OECD 211	

Algae toxicity (Components)

formic acid ... %

Species	Selenastrum capricornutum	
EC50	1.240	mg/l
Duration of exposure	72	h
Method	OECD 201	
Remarks	Test conducted with a similar formulation.	

Bacteria toxicity (Components)

formic acid ... %

Species	Pseudomonas putida	
EC50	46.7	mg/l
Duration of exposure	17	h
Method	DIN 38412 Part 8	
Remarks	Test conducted with a similar formulation.	

formic acid ... %

Species	activated sludge	
EC10	72	mg/l
Duration of exposure	13	d

formic acid ... %

Species	activated sludge	
EC20	> 1000	mg/l
Duration of exposure	0.5	h
Method	DIN EN ISO 8192	

12.2. Persistence and degradability

Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

Print date: 18.08.25

Biodegradability (Components)**formic acid ... %**

Value	100	%
Duration of test evaluation	9 d	
Readily biodegradable		

Chemical oxygen demand (COD) (Components)**formic acid ... %**

Value	348	mg/g
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Biochemical oxygen demand (BOD5) (Components)**formic acid ... %**

Value	86	mg/g
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12.3. Bioaccumulative potential**Partition coefficient n-octanol/water (log value)**

log Pow	-1.9	
Temperature	23	°C

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**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 environment**

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**

Harmful to aquatic organisms. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Product is slightly hazardous to water.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations for the product**

EWC waste code	No not dispose with rubbish.
EWC waste code	Should not be released into the sanitary sewer system.
Disposal in compliance with local and national regulations.	

Disposal recommendations for packaging

Disposal in compliance with local and national regulations.

SECTION 14: Transport information

Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

Print date: 18.08.25

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	D/E		
14.1. UN number	1779	1779	1779
14.2. UN proper shipping name	FORMIC ACID, Solution	FORMIC ACID, Solution	FORMIC ACID, Solution
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 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 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 not been carried out.

SECTION 16: Other information

Hazard statements listed in Chapter 3

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H332	Harmful if inhaled.

CLP categories listed in Chapter 3

Acute Tox. 3	Acute toxicity, Category 3
Acute Tox. 4	Acute toxicity, Category 4
Eye Dam. 1	Serious eye damage, Category 1
Flam. Liq. 3	Flammable liquid, Category 3
Met. Corr. 1	Substance or mixture corrosive to metals, Category 1

Trade name: Acid formicicum 25%

Substance number: 202251

Version: 4 / CH

Date revised: 18.08.2025

Replaces Version: 3 / CH

Print date: 18.08.25

Skin Corr. 1A

Skin corrosion, Category 1A

Skin Corr. 1B

Skin corrosion, Category 1B

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.