

Trade name: Acid citricum monohydr pulv

Substance number: 060164

Version: 4 / CH

Date revised: 11.12.2025

Replaces Version: 3 / CH

Print date: 11.12.25

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

1.1. Product identifier

Acid citricum monohydr pulv

Item No. 06016400

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

Use of the substance/preparation

Raw material for pharmaceutical production and analysis

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)

Eye Irrit. 2 H319

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

Warning

Hazard statements ***

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statements ***

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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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.

P312

Call a POISON CENTRE or doctor if you feel unwell.

P501.3

Disposal in compliance with local and national regulations.

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

contains ***

Citric acid, monohydrate

Reduced labeling (<= 125 ml)**Hazard pictograms *******Signal word *****

Warning

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 *****Molecular weight**

Value

210.14

g/mol

Hazardous ingredients *****Citric acid, monohydrate**

CAS No. 5949-29-1

EINECS no. 201-069-1, 611-842-9

Registration no. 01-2119457026-42-0008

Concentration >= 50 %

Classification (Regulation (EC) No. 1272/2008)

Eye Irrit. 2 H319

STOT SE 3 H335

Respiratory tract; Route of exposure: inhalative

SECTION 4: First aid measures**4.1. Description of first aid measures****After inhalation**

Ensure supply of fresh air.

After skin contact

After contact with skin, wash immediately with plenty of water. Remove contaminated, soaked clothing immediately and dispose of safely.

After eye contact

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Seek medical advice immediately.

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After ingestion

Drink water in small gulps. Seek medical advice immediately.

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

Coughing, bleeding vomiting, Causes very strong irritations of the eyes, skin and mucous membranes.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Water, Carbon dioxide, Foam, Dry powder

5.2. Special hazards arising from the substance or mixture

The product is combustible. In case of combustion evolution of dangerous gases possible.

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

Use self-contained breathing apparatus.

Other information

Suppress vapours with water spray jet. Do not discharge into surface waters/groundwater.

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

Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not inhale dust. Ensure adequate ventilation. Wear protective equipment. Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

Do not empty into drains.

6.3. Methods and material for containment and cleaning up

To pick up dry. Dampen, pick up mechanically and dispose of. Clean up affected area. Avoid raising dust.

6.4. Reference to other sections

Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Observe safety references and application instructions mentioned on can.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Do not use metal containers. Keep container tightly closed and dry.

Storage classes

Storage class according to TRGS 510

11

Combustible solids

Storage category (Switzerland)

11/13

Other solid hazardous substances with classification/labelling hazardous

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

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Predicted No Effect Concentration (PNEC)

Citric acid, monohydrate

Type of value	PNEC	
Type	Freshwater	
Concentration	0.44	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0.044	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	1000	mg/l
Type	Freshwater sediment	
Concentration	34.6	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	3.46	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	33.1	mg/kg

8.2. Exposure controls

General protective and hygiene measures

Wash contaminated clothing before reuse. Preventative skin protection. Wash hands and face after work.

Respiratory protection

necessary; Breathing apparatus in the event of aerosol. Particle filter P2; EN 143

Hand protection

Use	Permanent hand contact
Appropriate Material	nitrile rubber - NBR
Material thickness	0.11 mm
Breakthrough time	> 480 min
Use	Short-term hand contact
Appropriate Material	nitrile rubber - NBR
Material thickness	0.11 mm
Breakthrough time	> 480 min

Eye protection

Safety glasses; Eye protection must comply with EN 166.

Body protection

Protective clothing

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	crystals
Colour	white
Odour	odourless

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Melting point

Value 135 to 152 °C

Flash point

Value 173.9 °C

Method closed cup

Auto-ignition temperature

Value 540 °C

Decomposition temperature

Value > 170 °C

pH value

Value 1.85

Concentration/H₂O 50 g/l

Temperature 25 °C

Partition coefficient n-octanol/water (log value)

log Pow -1.72

Temperature 20 °C

Vapour pressure

Value < 1 Pa

Temperature 25 °C

Density and/or relative densityValue 1.54 g/cm³

Temperature 20 °C

9.2. Other information**Solubility in water**

Value appr. 880 g/l

Temperature 20 °C

Bulk densityValue appr. 800 to 1000 kg/m³**SECTION 10: Stability and reactivity****10.1. Reactivity**

Danger of dust explosion, Formation of explosive gas/air mixtures.

10.2. Chemical stability

No decomposition if stored and applied as directed.

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.

10.5. Incompatible materials

Reacts violently with: Oxidising agents, Metals, Bases, Reducing agents

10.6. Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

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

Acute oral toxicity

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

Acute oral toxicity (Components)

Citric acid, monohydrate

Species	rat		
LD50	11700		mg/kg
Method	OECD 401		
Remarks	anhydrous		

Citric acid, monohydrate

Species	mouse		
LD50	5400		mg/kg
Remarks	anhydrous		

Citric acid, monohydrate

Species	rat		
LD50	3000		mg/kg
Remarks	anhydrous		

Acute dermal toxicity

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

Acute dermal toxicity (Components)

Citric acid, monohydrate

Species	rat		
LD50	> 2000		mg/kg
Method	OECD 402		
Remarks	anhydrous		

Acute inhalational toxicity

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

Acute inhalative toxicity (Components)

Citric acid, monohydrate

Remarks Irritating to respiratory system.

Skin corrosion/irritation

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

Skin corrosion/irritation (Components)

Citric acid, monohydrate

Species	rabbit		
evaluation	non-irritant		
Method	OECD 404		

Serious eye damage/irritation

evaluation	irritant
Remarks	The classification criteria are met.

Serious eye damage/irritation (Components)

Citric acid, monohydrate

Species	rabbit		
evaluation	strongly irritant		
Method	OECD 405		

Sensitization

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

Sensitization (Components)

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Citric acid, monohydrate

Remarks No data available.

Mutagenicity

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

Mutagenicity (Components)**Citric acid, monohydrate**evaluation No mutagenicity in the Ames-test.
Method OECD 471**Reproductive toxicity**

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

Reproduction toxicity (Components)**Citric acid, monohydrate**Route of exposure oral
Species rat
evaluation No negative effects**Carcinogenicity**

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

Carcinogenicity (Components)**Citric acid, monohydrate**

Remarks Not documented.

Specific Target Organ Toxicity (STOT)**Single exposure**Remarks The classification criteria are met.
evaluation May cause respiratory irritation.**Repeated exposure**

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

Aspiration hazard

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

After Swallowing: Irritates the mucous membrane.

Other information

Observe the usual precautions for handling chemicals.

SECTION 12: Ecological information**12.1. Toxicity****Fish toxicity**Species golden orfe (*Leuciscus idus*)
LC50 440 to 760 mg/l
Duration of exposure 96 h
Source IUCLID**Fish toxicity (Components)****Citric acid, monohydrate**

Reference substance Citric acid, monohydrate

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Daphnia toxicity

Species	Daphnia magna		
EC50	appr. 120		mg/l
Duration of exposure	72	h	
Source	IUCLID		

Daphnia toxicity (Components)**Citric acid, monohydrate**

Species	Daphnia		
EC50	120		mg/l
Duration of exposure	72	h	

Algae toxicity

Species	Microcystis aeruginosa (blue alge)		
IC5	80		mg/l
Duration of exposure	8	d	

Source Literature value

Species	Scenedesmus quadricauda		
IC5	640		mg/l
Duration of exposure	7	d	

Bacteria toxicity

Species	Pseudomonas putida		
EC5	> 10000		mg/l
Duration of exposure	16	h	
Source	Literature value		

Bacteria toxicity (Components)**Citric acid, monohydrate**

Species	Pseudomonas putida		
EC50	> 100000		mg/l
Duration of exposure	16	h	

12.2. Persistence and degradability**Biodegradability**

Value	98		%
Duration of test evaluation	2	d	
Method	OECD 302B/ISO 9888/EEC 88/302,C		
Remarks	Grade of elimination: > 70%		

Biodegradability (Components)**Citric acid, monohydrate**

evaluation Readily biodegradable

Chemical oxygen demand (COD)

Reference substance Citric acid, anhydrous

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

log Pow	-1.72		
Temperature	20	°C	

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.

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12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the environment

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

12.7. Other adverse effects

General information / ecology

Do not allow it to reach soil, ground water, water bodies or sewage system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Allocation of a waste code number, according to the European Waste Catalogue (EWC), should be carried out in agreement with the regional waste disposal company.

Disposal recommendations for packaging

EWC waste code

No not dispose with rubbish.

Dispose of as unused product.

EWC waste code

Should not be released into the sanitary sewer system.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number or ID number	The product does not constitute a hazardous substance in land transport.	The product does not constitute a hazardous substance in sea transport.	The product does not constitute a hazardous substance in air transport.

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

Other information ***

The product does not contain substances according to Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH) with a content of $\geq 0.1\%$ w/w.

SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification (Regulation (EC) No. 1272/2008)

Eye Irrit. 2

H319

Calculation method

STOT SE 3

H335

Calculation method

Hazard statements listed in Chapter 2/3

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

CLP categories listed in Chapter 2/3

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Eye Irrit. 2
STOT SE 3

Eye irritation, Category 2
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.