

Trade name: Acid citricum monohydr crist

Substance number: 060160

Version: 4 / CH

Date revised: 24.04.2023

Replaces Version: 3 / CH

Print date: 24.04.23

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

1.1. Product identifier

Acid citricum monohydr crist

Item No. 06016000

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

Use of the substance/preparation

food additive, Component of cosmetic products, Manufacture of pharmaceutical products, Cleaning agent, industry

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

2.3. Other hazards

Dust can form an explosive mixture with air.

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
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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****General information**

Remove affected person from danger area. In any case show the physician the Safety Data Sheet.

After inhalation

Ensure supply of fresh air. In the event of symptoms take medical treatment.

After skin contact

Remove contaminated, soaked clothing immediately and dispose of safely. Wash off immediately with soap and water and rinse well.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Remove contact lenses. Shield unaffected eye. Seek medical advice immediately.

After ingestion

Rinse out mouth and give plenty of water to drink. Never give anything by mouth to an unconscious person. Take medical treatment.

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

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Water, Alcohol-resistant foam

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Forms explosive mixture with air are possible.

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

Use self-contained breathing apparatus.

Other information

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations. Do not inhale explosions- and combustion gases. Fire residues must be disposed of in a proper manner.

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

Wear protective equipment. Avoid dust formation. Do not inhale dust. Ensure adequate ventilation.

6.2. Environmental precautions

Do not allow to enter drains or waterways.

6.3. Methods and material for containment and cleaning up

Neutralize. Avoid raising dust. Pick up mechanically.

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

Avoid contact with skin and eyes. Wear protective equipment

Advice on protection against fire and explosion

Avoid dust formation. Take action to prevent static discharges.

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

Value 10 - 30 °C

Requirements for storage rooms and vessels

Keep container tightly closed and dry.

Storage classes

Storage class according to TRGS 510	13	Non- 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****Predicted No Effect Concentration (PNEC)****Citric acid, monohydrate**

Type of value	PNEC	
Type	Freshwater	
Concentration	0.44	mg/l

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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

Do not eat, drink or smoke during work time. Observe the usual precautions for handling chemicals.
Wash hands before breaks and after work.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Particle filter half mask, filter P3 - Norm NF EN 149; Full mask; Particle filter P1; If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn.

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	nitrile rubber - NBR		
Material thickness	>	0.3	mm
Breakthrough time	>	8	h

Hand protection must comply with EN 374.

Eye protection

Tightly fitting 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	Powder to fine granulates		
Colour	colourless to white		
Odour	odourless		
Melting point			
Value	153		°C
Flash point			
Value	173.9		°C
Method	closed cup		

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pH value

Value		1.8	
Concentration/H ₂ O	appr.	50	g/l

Solubility(ies)

Ethanol			
Remarks		soluble	
Diethyl ether			
Remarks		partly soluble	
Trichloromethane (Chloroform)			
Remarks		insoluble	

Partition coefficient n-octanol/water (log value)

log Pow		-1.67	
Method		calculated	

Vapour pressure

Value	<	0.001	hPa
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Density and/or relative density

Value		1.54	g/cm ³
Temperature		20	°C

9.2. Other information**Solubility in water**

Value		776	g/l
Temperature		25	°C

Auto-ignition temperature

Value		1010	°C
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Other information

The product is not easy combustible.

SECTION 10: Stability and reactivity**10.1. Reactivity**

Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

Avoid dust formation.

10.4. Conditions to avoid

Avoid dust formation. Do not keep at temperatures above 35 °C.

10.5. Incompatible materials

Acids, Alkalis, Oxidising agents, Reducing agents

10.6. Hazardous decomposition products

In the event of fire the following can be released: Carbon monoxide and carbon dioxide

Other information

Formation of explosive gas/air mixtures.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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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 (Components)**Citric acid, monohydrate**

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

Acute inhalative toxicity (Components)**Citric acid, monohydrate**

Remarks	Irritating to respiratory system.
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Skin corrosion/irritation (Components)**Citric acid, monohydrate**

Species	rabbit
evaluation	non-irritant
Method	OECD 404

Serious eye damage/irritation (Components)**Citric acid, monohydrate**

Species	rabbit
evaluation	strongly irritant
Method	OECD 405

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

Remarks	No data available.
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Mutagenicity (Components)**Citric acid, monohydrate**

evaluation	No mutagenicity in the Ames-test.
Method	OECD 471

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

Route of exposure	oral
Species	rat
evaluation	No negative effects

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

Remarks	Not documented.
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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.

SECTION 12: Ecological information *****12.1. Toxicity****Fish toxicity (Components)****Citric acid, monohydrate**

Reference substance Citric acid, monohydrate

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

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

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

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

12.2. Persistence and degradability**Biodegradability (Components)****Citric acid, monohydrate**

evaluation Readily biodegradable

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

log Pow	-1.67
Method	calculated

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 environment**

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

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

EWC waste code Should not be released into the sanitary sewer system.
In accordance with regulations for special waste, must be taken, to an authorised special waste incineration plant.

Disposal recommendations for packaging

Dispose of as unused product.

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SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN 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

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

H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

CLP categories listed in Chapter 3

Eye Irrit. 2 Eye irritation, Category 2
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.