

**ACIDUM CITRICUM MONOHYDRICUM**

Publication: 26/08/2024  
Revision: 15/11/2024  
Version: 01

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifier**

Product name: Citric acid monohydrate  
Acidum citricum monohydricum  
Citroenzuur monohydraat  
Citrique (acide) monohydraté  
CitronensäureZitronensäure

N° CAS: 5949-29-1

N° EC: 691-328-9

**1.2 Relevant identified uses of the substance/mixture and uses advised against**

Identified uses: Excipient.

**1.3 Details of the supplier of the safety data sheet**

Company: Magis-Pharma NV  
Neerlandweg 24  
2610 Wilrijk  
Belgium

Telephone: (+32) (0)3 457 11 76

Email: info@magis-pharma.be

Web page: www.magis-pharma.be

**1.4 Emergency telephone number**

Public utility foundation:	Belgisch Antigifcentrum	Centre Antipoisons Belge
Telephone:	(+32) (0)70 245 245	(Service 24/7)
Web page:	www.antigifcentrum.be	www.centreantipoisons.be

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1 Classification of the substance/mixture**

**Classification according to (EC) n° 1272/2008**

Skin Irrit. 2	H315
Eye Irrit. 2	H319
STOT SE 3	H335

**2.2 Label elements**

**Labelling according to (EC) n° 1272/2008**

Hazard pictogram(s):



Signal word(s): Attention

Hazard statements:

H315	Causes skin irritation.
H319	Causes serious eye irritation.

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H335	May cause respiratory irritation.
Precautionary statements:	
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and ...] thoroughly after handling.
P264+P265	Wash hands [and ...] thoroughly after handling. Do not touch eyes.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep 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 CENTER/doctor if you feel unwell.
P319	Get medical help if you feel unwell.
P321	Specific treatment (see section 4 on this label).
P332+P317	If skin irritation occurs: Get medical help.
P337+P313	If eye irritation persists: Get medical advice/attention.
P337+P317	If eye irritation persists: Get medical help.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to local/regional/national/international regulations.
Additional applicable label elements:	Not applicable.

**2.3 Other hazards**

None.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

Product name:	Citric acid monohydrate
IUPAC name:	2-Hydroxypropane-1,2,3-tricarboxylic acid
Synonyms:	1,2,3-Propanetricarboxylic acid, 2-hydroxy-, monohydrate Anhydrous Citric Acid Citrate
N° CAS:	5949-29-1
N° EC:	691-328-9
Molecular Formula:	C <sub>6</sub> H <sub>8</sub> O <sub>7</sub> ·H <sub>2</sub> O
Content:	99.5 per cent to 100.5 per cent (anhydrous substance)

**3.2 Mixtures**

Not applicable.

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**SECTION 4: FIRST AID MEASURES**

**4.1 Description of first aid measures**

General notes:	Consult a doctor. Show the safety data sheet to the doctor on duty.
After inhalation:	Remove to fresh air. If breathing is irregular, call a doctor immediately. Only give artificial respiration if breathing stops or under medical supervision.
After skin contact:	Wash immediately with plenty of soap and water for at least 15 minutes. Remove all contaminated clothing immediately. Get medical attention if irritation develops and persists.
After eye contact:	Remove contact lenses and rinse immediately with plenty of water, including under the eyelids, for at least 15 minutes. Get medical attention.
After ingestion:	If conscious, give the victim plenty of water to drink. Never give anything by mouth to an unconscious person. Call a doctor immediately.

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

There are no known relevant acute or delayed effects from exposure to the product.

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

Not available.

**SECTION 5: FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

Suitable extinguishing media:	Foam, dry powder, carbon dioxide, sand, water fog. Neighboring fires (fire-exposed containers): Water spray or water fog.
Unsuitable extinguishing media:	Direct water jet.

**5.2 Special hazards arising from the substance/mixture**

Avoid breathing combustion product.

**5.3 Advice for firefighters**

Surrounding fires:	Cool containers with water to prevent decomposition of product and development of health hazards. Always use full fire protection. Collect water from which must not enter sewage system. Dispose of contaminated water used for extinguishing and residues in accordance with current regulations.
Protection against fire:	Helmet with visor, flame retardant clothing (jacket and trousers with straps around the arms, legs and waist, EN 469), gloves (fireproof and dielectric, EN 659), a mask with face mask covering the whole face of the operator or the car (self protective) in case of large amounts of smoke, a self-contained breathing apparatus (EN 137).
Hazardous combustion products:	Not available.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

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**For non-emergency personnel**

Mechanically scoop up spilled product and place in containers for recovery or disposal. Remove residue with water spray if there are no contraindications.

Ensure adequate ventilation of the area affected by the spillage. Check for possible incompatibilities for the material in section 7. Disposal of contaminated material should be in accordance with the provisions of section 13.

**For emergency responders**

Mechanically scoop up spilled product and place in containers for recovery or disposal. Remove residue with water spray if there are no contraindications.

Ensure adequate ventilation of the area affected by the spillage. Check for possible incompatibilities for the material in section 7. Disposal of contaminated material should be in accordance with the provisions of section 13.

**6.2 Environmental precautions**

Prevent further leakage or spillage if this can be done safely.

Do not allow product to enter sewage system.

**6.3 Methods and material for containment and cleaning up**

Mechanically scoop up spilled product and place in containers for recovery or disposal. Remove residue with water spray if there are no contraindications.

Ensure adequate ventilation of the area affected by the spillage. Check for possible incompatibilities for the material in section 7. Disposal of contaminated material should be in accordance with the provisions of section 13.

**6.4 Reference to other sections**

For exposure control and personal protective measures, see section 8.

For waste disposal, follow the recommendations in section 13.

**SECTION 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

Precautions for safe handling: Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.

Personal protection: Not available.

Technical protective measures: Adequate extraction should be provided where dust is formed. Normal fire prevention precautions. Avoid electrostatic charge build-up.

Handling: Not available.

**7.2 Conditions for safe storage, including any incompatibilities**

Storage: In an airtight container.

Conditions for safe storage, including any incompatibilities: Store only in the original container. Store closed containers in a well-ventilated area out of direct sunlight.

Storage – away from: Keep containers away from incompatible materials, see section 10.

**7.3 Specific end use(s)**

Excipient.

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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

Not available.

#### 8.2 Exposure controls

##### Appropriate engineering control

Since the use of appropriate technical measures should always take precedence over personal protective equipment, ensure good ventilation at the workplace by effective local suction. When choosing personal protective equipment, ask your chemical suppliers if this is necessary. Personal protective equipment must be CE-marked for compliance with applicable regulations. Provide an emergency shower with a visco-elastic tray.

Hygiene measures: Handle with proper industrial hygiene precautions, and observe safety practices. Wash hands before breaks and after finishing work.

##### Individual protection measures

Eye/face protection: Protective face shields and safety goggles according to EN 165, EN 166, EN 167, EN 168.

Skin protection: Choose body protection according to the quantity and concentration of the hazardous substance in the workplace.

Hand protection: Handle with gloves. The selected protective gloves must comply with the specifications of EU Directive 89/686/EEC and the derived standards EN 374-1, EN 374-2, EN 374-3, EN 420.

Respiratory protection: Where risk assessment shows that air-purifying respirators are appropriate, use dust mask type N95 (USA) or type P1 (EN 149). Use respirators and components tested and approved under appropriate governmental standards such as NIOSH (US) or CEN (EU).

Thermal hazards: Not determined.

##### Environmental exposure control

Not available.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

Appearance: White or almost white, crystalline powder, colourless crystals or granules.

Odour: Odourless.

Odour threshold: Not available.

pH: 1,85 (5%, 25 °C)

Melting/freezing point: About 153 °C, with decomposition.

Initial boiling point: Not available.

Boiling range: Not available.

Flash point: Not available.

Evaporation rate: Not available.

Flammability (solid/gas): Not available.

Upper/lower flammability or explosive limits: Not available.

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Vapour pressure:	Not available.
Vapour density:	Not available.
Relative density:	Not available.
Solubility:	Freely soluble in ethanol (96 per cent).
Solubility in water:	Very soluble in water 67,6 % (20 °C)
Partition coefficient (n-octanol/water):	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	Not available.
Explosive properties:	Not available.
Oxidising properties:	Not available.

### 9.2 Other information

Molecular weight (g/mol): 210,14

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Not available.

### 10.2 Chemical stability

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

### 10.3 Possibility of hazardous reactions

Not available.

### 10.4 Conditions to avoid

Not available.

### 10.5 Incompatible materials

Not available.

### 10.6 Hazardous decomposition products

Decomposition by heat can produce toxic CO and CO<sub>2</sub> fumes.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity:	Acute toxicity (LD <sub>50</sub> , mole): 54000 mg/kg
Skin corrosion/irritation:	Not available.
Serious eye damage/irritation:	Causes serious eye irritation.
Respiratory/skin sensitisation:	Not available.

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Germ cell mutagenicity:	Not available.
Carcinogenicity:	Not available.
Reproductive toxicity:	Not available.
Summary of evaluation of the CMR properties:	Not available.
STOT-single exposure:	Not available.
STOT-repeated exposure:	Not available.
Aspiration Hazard:	Not available.
Other:	Not available.

**11.2 Additional information on potential adverse human health effects and symptoms**

Eye contact:	Not available.
Skin contact:	Not available.
Inhalation:	Not available.
Ingestion:	Not available.
Aspiration:	Not available.

**SECTION 12: ECOLOGICAL INFORMATION**

Use in accordance with good working practices, avoiding dispersal of the product into the environment. Notify the competent authorities if the product has reached watercourses or if it has contaminated soil or vegetation.

**12.1 Toxicity**

LC <sub>50</sub> Toxicity ( <i>Daphnia magna</i> ):	1535 mg/L/24 hours
LC <sub>50</sub> Toxicity ( <i>Leuciscus idus</i> ):	440 mg/L/48 hours

**12.2 Persistence and degradability**

Readily biodegradable.

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

Not available.

**12.5 Results of PBT and vPvB assessment**

According to available data, the product does not contain PBT or vPvB substances in concentrations above 0.10 %.

**12.6 Other adverse effects**

Not available.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

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Product: Consider all federal, state and local environmental regulations. Contact a licensed professional waste disposal service for disposal of this material. Dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

### SECTION 14: TRANSPORT INFORMATION

#### Transport information according to ADR/RID/IMDG/ICAO/IATA

The product is not to be considered dangerous according to the applicable regulations on the transport of dangerous goods by road (ADR), rail (RID), sea (IMDG Code) and air (IATA).

#### 14.1 UN Number

ADR/ RID(Land),IMDG(Sea), IATA/ICAO (Air) : It is not dangerous in transport.

#### 14.2 UN proper shipping name

ADR/ RID(Land),IMDG(Sea), IATA/ICAO (Air) : It is not dangerous in transport.

#### 14.3 Transport hazard class(es)

ADR/ RID(Land),IMDG(Sea), IATA/ICAO (Air) : It is not dangerous in transport.

#### 14.4 Packing group

ADR/ RID(Land),IMDG(Sea), IATA/ICAO (Air) : It is not dangerous in transport.

#### 14.5 Environmental hazards

ADR/ RID(Land),IMDG(Sea), IATA/ICAO (Air) : It is not dangerous in transport.

#### 14.6 Special precautions for user

It is not dangerous in transport.

#### 14.7 Transport in bulk according to annex II of Marpol and the IBC Code

Not applicable.

#### 14.8 Additional transport information

Not available.

### SECTION 15: REGULATORY INFORMATION

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance/mixture

Hazard symbol:



Risk phrases:

R36 Irritating to eyes.

Safety phrases:

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.



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S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

S63 In case of accident by inhalation: remove casualty to fresh air and keep at rest.

**15.2 Chemical safety assessment**

A chemical safety assessment of the product has not been carried out.

**SECTION 16: OTHER INFORMATION**

**16.1 Changes since the previous version**

Not applicable.

**16.2 Abbreviations and acronyms used**

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
EC (number):	European Community (number)
IATA:	International Air Transport Association
ICAO:	International Civil Aviation Organization
IMDG:	International Maritime Code for Dangerous Goods
IUPAC:	International Union of Pure and Applied Chemistry
PBT:	Persistent, Bioaccumulative and Toxic substance
RID:	Regulations Concerning the International Transport of Dangerous Goods by Rail
STOT:	Specific Target Organ Toxicity
UN (number):	United Nations (number)
vPvB:	very Persistent and very Bioaccumulative

**16.3 Key literature references/sources for data**

European Chemicals Agency.  
<https://www.echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database/>

**16.4 Method of classification in case of mixture**

Not applicable.

**16.5 Relevant Hazard statements and/or precautionary statements**

For information on hazard and/or precautionary statements refer to section 2 up to and including section 15.

**16.6 Training advisement**

Not available

**16.7 Notice for user(s)**

The information provided in this MSDS has been established in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015, amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council, on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94, as well as Council Directive 76/769/EEC and Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC of the Commission.

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**16.8 Department issuing MSDS**

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