

Page 1/8

### Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 29.08.2025 Version number 6.00 (replaces version 5.00) Revision: 29.08.2025

#### 1 Identification of the substance/mixture and of the company/undertaking

· Product identifier

· Trade name: citric acid · Article number: 2020

· CAS Number:

77-92-9

• **EC number:** 201-069-1

- · Registration number The substance is exempt from REACH-registration.
- Relevant identified uses of the substance or mixture and uses advised against
- · Application of the substance / the mixture Ingredient for pharmaceutical drugs
- · Uses advised against No relevant information available.
- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

**CAELO** 

Caesar & Loretz GmbH

Herderstr. 31 D-40721 Hilden GERMANY

· Further information obtainable from:

E-mail: info@caelo.de

Tel.: +49210349940 (during regular opening hours)

· Emergency telephone number:

Poison Information Center Bonn Venusberg-Campus 1, 53127 Bonn

Tel: +49 (0) 228-192400

#### 2 Hazards identification

- · Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

- · Label elements
- Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms



· Signal word Warning



Page 2/8

# Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 29.08.2025 Version number 6.00 (replaces version 5.00) Revision: 29.08.2025

Trade name: citric acid

(Contd. of page 1)

· 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 eye protection / face protection.

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.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Other hazards

Results of PBT and vPvB assessment

· **PBT:** Not applicable. · **vPvB:** Not applicable.

· Determination of endocrine-disrupting properties Not applicable.

#### 3 Composition/information on ingredients

· Substances

· CAS No. Description CAS: 77-92-9 citric acid

· Identification number(s)

EC number: 201-069-1

#### 4 First aid measures

- · Description of first aid measures
- · After inhalation:

Supply fresh air.

Seek medical treatment in case of complaints.

- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

#### 5 Firefighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

All regular extinguishing media can be used.

Use fire extinguishing methods suitable to surrounding conditions.

Special hazards arising from the substance or mixture

Combustible. In case of fire dangerous vapours/gases can be generated: Smoke gases.

(Contd. on page 3)



Page 3/8

### Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 29.08.2025 Version number 6.00 (replaces version 5.00) Revision: 29.08.2025

Trade name: citric acid

(Contd. of page 2)

- · Advice for firefighters
- · Protective equipment: In case of fire wear suitable protective clothes and respiratory protection.
- · Additional information

Prevent from entering into drains. Fire residues must be disposed in accordance with official regulations.

#### 6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Avoid contact with the substance.

- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Take up dry. Clean up with water.

Dispose contaminated material as waste according to section 13.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

#### 7 Handling and storage

- · Precautions for safe handling No special precautions are necessary if used correctly.
- · Information about fire and explosion protection: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Tightly closed. Store at a dry place. At room temperature (+15°C to +25°C).

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: No further information
- · Storage class: TRHS 510: 11 Combustible solids
- · Specific end use(s) No further relevant information available.

#### 8 Exposure controls/personal protection

- · Control parameters
- Ingredients with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists valid during the making were used as basis.
- Exposure controls
- · Appropriate engineering controls No further data; see section 7.
- Individual protection measures, such as personal protective equipment
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- **Respiratory protection:** Dust protection mask.
- · Hand protection Protective gloves

(Contd. on page 4)



Page 4/8

### Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 29.08.2025 Version number 6.00 (replaces version 5.00) Revision: 29.08.2025

Trade name: citric acid

(Contd. of page 3)

#### · Material of gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

#### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye/face protection Tightly sealed goggles

#### 9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Physical state Solid · Colour: White · Odour: Odourless · Odour threshold: Not determined.

· Melting point/freezing point: 153 °C

Boiling point or initial boiling point and boiling

Undetermined.

· Flammability Product is not flammable.

Lower and upper explosion limit

· Lower: Not determined. · Upper: Not determined. · Flash point: 345 °C

**Auto-ignition temperature:** 1.010 °C

Not determined. Decomposition temperature:

pH (100 g/l) at 20 °C 1.6

· Viscosity:

· Kinematic viscosity Not applicable. · Dynamic: Not applicable.

· Solubility

water at 20 °C: 600 g/l

· Partition coefficient n-octanol/water (log value) Not determined.

· Vapour pressure:

Not applicable.

Density and/or relative density

· Density at 20 °C: 1.665 g/cm<sup>3</sup> · Relative density Not determined. 1000 kg/m3 · Bulk density: · Vapour density Not applicable. · Particle characteristics Not determined

Other information

· Appearance:

· Form: Crystalline powder

(Contd. on page 5)



Page 5/8

# Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 29.08.2025 Version number 6.00 (replaces version 5.00) Revision: 29.08.2025

Trade name: citric acid

(Contd. of page 4)

· Important information on protection of health and environment, and on safety.

· **Ignition temperature:** Not determined.

• **Explosive properties:** Product does not present an explosion hazard.

· Change in condition

• **Evaporation rate** Not applicable.

· Information with regard to physical hazard classes

Explosives
 Void
 Flammable gases
 Void
 Void
 Aerosols
 Void
 Void

Oxidising gases
 Void
 Gases under pressure
 Void
 Void
 Void

· Flammable liquids Void Void

Flammable solids
 Void
 Self-reactive substances and mixtures
 Void

· **Pyrophoric liquids** Void

Pyrophoric solids Void Void Void

Self-heating substances and mixtures Void Void

· Substances and mixtures, which emit flammable

gases in contact with water Void Void

· Oxidising liquids Void Void · Oxidising solids Void

Void · Organic peroxides Void

Void

· Corrosive to metals Void Void

· Desensitised explosives Void Void

### 10 Stability and reactivity

· Reactivity No further relevant information available.

(Contd. on page 6)



Page 6/8

# Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 29.08.2025 Version number 6.00 (replaces version 5.00) Revision: 29.08.2025

Trade name: citric acid

(Contd. of page 5)

- · Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: Carbon dioxide
- · Additional information: Sensitive to moisture

#### 11 Toxicological information

- Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.
- LD/LC50 values relevant for classification:

Oral LD50 5,400 mg/kg (mouse)

11,700 mg/kg (rat)

Dermal LD50 >2,000 mg/kg (rat)

- · Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Causes serious eye irritation.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure May cause respiratory irritation.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- · Additional toxicological information:

High concentrations can cause tiredness, dizziness or loss of consciousness.

Vapors and liquid can cause eye irritation.

- · Information on other hazards
- · Endocrine disrupting properties

On the basis of the available data, the substance does not meet the criteria for the identification of substances having properties of interference with the endocrine system, in accordance with Article 59, paragraph 1 of the REACH Regulation and the criteria established in the Delegated Regulation (EU) 2017 / 2100 of the Commission or in Commission Regulation (EU) 2018/605.

#### 12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability Easily biodegradable
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

(Contd. on page 7)



Page 7/8

# Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 29.08.2025 Version number 6.00 (replaces version 5.00) Revision: 29.08.2025

Trade name: citric acid

(Contd. of page 6)

#### · Endocrine disrupting properties

Based on the available data, the substance does not meet the criteria for the identification of substances with properties affecting the endocrine system according to Article 59(1) of the REACH Regulation and the criteria of the Commission Delegated Regulation (EU) 2017/2100 or in the Commission Regulation (EU) 2018/605.

The product does not contain substances with endocrine disrupting properties.

- · Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

#### 13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to local regulations.

#### \*14 Transport information

UN number or ID number
 ADR, IMDG, IATA
 UN proper shipping name
 ADR
 IMDG, IATA
 Not subject to transport regulations.
 not regulated
 not regulated
 not regulated

· Transport hazard class(es)

· ADR, ADN, IMDG, IATA

· Class not regulated

· Packing group

ADR, IMDG, IATA
 Environmental hazards:
 Special precautions for user
 not regulated
 Not applicable.
 Not applicable.

· Maritime transport in bulk according to IMO

instruments Not applicable.

UN "Model Regulation": not regulated

#### 15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV) Not listed

(Contd. on page 8)



Page 8/8

### Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 29.08.2025 Version number 6.00 (replaces version 5.00) Revision: 29.08.2025

Trade name: citric acid

(Contd. of page 7)

- · REGULATION (EC) No 1907/2006 ANNEX XVII Not listed
- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

Substance is not listed.

- · National regulations:
- Storage of hazardous substances in in nonstationary vessels (TRGS 510) (Germany) TRHS 510: 11 Combustible solids
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

#### 16 Other information

The information provided is based on our current level of knowledge. This MSDS has been compiled and is exclusively for this product intended.

- Reasons for alterations This version replaces all old versions.
- · Contact:

E-Mail: info@caelo.de Telefon: +49 2103 4994 0

Date of previous version: 29.08.2025
Version number of previous version: 5.00

Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

\* Data compared to the previous version altered.

IE -