

Product Information

Citric Acid Anhydrous

General Information

Citric acid is a natural occurring fruit acid, produced commercially by microbial fermentation of a carbohydrate substrate. Citric acid is the most widely used organic acid and pH-control agent in foods, beverages, pharmaceuticals and technical applications.

Chemical Data

Chemical Nomenclature	2-hydroxypropane-1,2,3-tricarboxylic acid
Chem. Formula	C ₆ H ₈ O ₇
Molecular Weight	192.12 g/mol
pH (5 %)	1.8
Melting point	about 153°C
REACH No.	01-2119457026-42-0000
EC No.	201-069-1
CAS No.	77-92-9
E-No.	E 330

Specification

Jungbunzlauer citric acid anhydrous is specified to meet the requirements of the latest editions of the European Pharmacopoeia (Ph. Eur.), the United States Pharmacopeia (USP), the Food Chemicals Codex (FCC), and of Commission Regulation (EU) No 231/2012.

Parameters	Jungbunzlauer Limits
Odour	typical, practically odourless
Identification	conforms
Appearance of solution	clear and colourless
Clarity of solution	conforms
Colour of solution	conforms
Readily carbonisable substances	conforms
Oxalic acid / oxalate	max. 100 mg/kg
Sulphate	max. 100 mg/kg
Heavy metals	max. 5 mg/kg
Arsenic	max. 1 mg/kg
Lead	max. 0.5 mg/kg
Mercury	max. 0.5 mg/kg
Calcium	max. 30 mg/kg
Iron	max. 3 mg/kg
Chloride	max. 5 mg/kg
Residue on ignition	max. 0.05 %
Sulphated ash	max. 0.05 %
Water	max. 0.50 %
Assay	99.7 – 100.3 %

Characteristics

Citric acid anhydrous occurs as colourless crystals or as white, crystalline powder with a strongly acidic taste. It is very soluble in water, freely soluble in ethanol (96%) and sparingly soluble in ether. Citric acid anhydrous is non-toxic and has a low reactivity. It is chemically stable if stored at ambient temperatures. Citric acid anhydrous is fully biodegradable.

Standard Granulations

Type	Particle size	Limits
N1560	> 1.25 mm < 0.40 mm	max. 5% max. 10%
N1500	> 1.25 mm < 0.20 mm	max. 5% max. 10%
F6000	> 0.63 mm < 0.20 mm	max. 10% max. 10%


Special granulations of Jungbunzlauer citric acid anhydrous are available upon request.

Legal Aspects

In Europe, citric acid anhydrous is listed as generally permitted food additive (E 330) and may be added to all foodstuffs, following the “quantum satis” principle, as long as no special regulation restricts the use.

The US Food and Drug Administration (FDA) has affirmed citric acid as GRAS (generally recognized as safe) and permitted the use in food according to current GMP (CFR § 184.1033), without setting an upper limit.

Citric acid is classified and labelled according to GHS (Globally Harmonized System), implemented by the European Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures (CLP Regulation) as follows:

Hazard Pictograms	Signal Word	Hazard Statements	Precautionary Statements
	Warning	H319: Causes serious eye irritation.	Prevention: P264: Wash hands thoroughly after handling. P280: Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313: If eye irritation persists: Get medical advice/attention.

Standard Packaging and Storage

Jungbunzlauer citric acid anhydrous is available in 25 kg net PE bags or in 1000 kg net big bags with inner PE lining.

Citric acid anhydrous may be stored for at least 3 years in original or tightly closed containers. Prolonged storage at temperatures higher than 30°C and/or humidity higher than 70% should be avoided in order to prevent caking.

The information contained herein has been compiled carefully to the best of our knowledge. We do not accept any responsibility or liability for the information given in respect to the described product. Our product has to be applied under full and own responsibility of the user, especially in respect to any patent rights of others and any law or government regulation.
