

**SPECIFICATION  
CITRIC ACID MONOHYDRATE**

It obtained from corn is obtained by the Aspergillus Niger strain by performing the crystallization process after the fermentation stage. It is one of the most commonly used additives in foodstuffs with its specifications as acid regulator, protector, flavorer, intensifier of antioxidant agents. It is also used in the beverage, medicine, cosmetics and industry sectors.

It conforms to the EP, USP, FCC and Codex Alimentarius requirements.

It does not contain food additives, food colors, antioxidants, preservatives or material of animal origin.

**General Characteristics**

<b>Cas No</b>	5949-29-1
<b>EINECS</b>	61-842-9
<b>Origin</b>	Turkey
<b>Formula</b>	C <sub>6</sub> H <sub>8</sub> O <sub>7</sub> .H <sub>2</sub> O
<b>Molecular weight</b>	210.14
<b>Appearance</b>	Granulated crystals
<b>Taste</b>	Sour
<b>Odor</b>	Odorless
<b>Solubility</b>	Very soluble in water, free soluble in ethanol, soluble in ether.

**Analysis**

<b>Analysis</b>	<b>Unit</b>	<b>Value</b>	<b>Method</b>
Identification *	Meets requirements	Meets requirements	EP/8 - USP 43
Water	%	8.10 – 8.70	EP/8 - USP 43- E330- FCC
Chlorides	ppm	< 5	EP/8
Sulphates	ppm	< 30	USP/43 -EP/8
Oxalates*	ppm	< 100	EP/8 - USP 43- E330- FCC
Readily Carbonizable Substances (RCS)	Meets requirements	Meets requirements	EP/8 - USP 43- E330- FCC
Sulphated Ash meets requirements	%	≤0.05	EP/8 - USP 43- E330- FCC
Appearance of solution	Meets requirements	Meets requirements	EP/8
Assay	%	99.5 - 100.5	EP/8 - USP 43- E330- FCC

**Granulation**

<b>Product Type</b>	<b>Code No</b>	<b>Microns(µm)-Mesh</b>	<b>Limits</b>
NeocitrusM0	NCM0	<u>Granular</u> on 4000 through 150	max %10 max %10

(\*)It is the result of accredited external laboratory measurement.

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**Microbiology**

Analysis	Unit	Value	Method
Total count	cfu/g mL	<10 <sup>2</sup>	ISO 4833-1
Yeasts	cfu/g mL	<10 <sup>3</sup>	ISO 21527-1
Moulds	cfu/g mL	<10 <sup>3</sup>	ISO 21527-1
E.Coli	cfu/g mL	<10	ISO 16649-1/2/3
Salmonella	cfu/g mL	0/25	EN/ISO 6579
Enterobacteraceae	cfu/g mL	<10	ISO 21528-1

**Pesticides**

Analysis	Unit	Value	Method
Pesticide Residues*	ppb	≤ 10	Internal Metot / GC/MS

**Heavy Metals**

Analysis	Unit	Value	Method
Cadmium*	ppm	<0,1	NMKL 186 ( ICP-MS)
Chrome*	ppm	<1	NMKL 186 ( ICP-MS)
Nickel *	ppm	<1	NMKL 186 ( ICP-MS)
Arsenic	ppm	< 1	AAS
Lead	ppm	< 0,5	AAS
Mercury	ppm	< 1	AAS
Copper	ppm	< 1	AAS
Zinc	ppm	< 1	AAS
Iron	ppm	< 1	AAS
Barium*	ppm	< 1	NMKL 186 ( ICP-MS)
Calcium	ppm	< 10	AAS
Magnesium	ppm	< 1	AAS
Aluminium*	ppm	< 0,2	NMKL 186 ( ICP-MS)

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**GMO**

It is Non-GMO and according to EC regulation No. 1829/2003/EC and 1830/2003/EC the product has a non-labeling status.

**Allergens**

It is allergen free according to Substances or Products Causing Allergies or Intolerances listed in Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers and ALBA list.

**It Complies With The Following Applicable Requirements of The Regulations**

Commission Regulation (EC) No 1881/2006 of 19 December 2006 setting maximum levels for certain contaminants in foodstuffs

Regulation (EC) No 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC with EEA relevance.

EU Regulation 231/2012 / EC on food additives listed in Annexes II and III (see E330: Citric acid)

**Storage Condition**

They should be stored in sealed original packages, in a well-ventilated room with a max. moisture content of 65% RH and at room temperature (+ 10 ° C to 30 ° C).

**Shelf Life**

Stored sealed under recommended conditions for 24 months.

**Packing**

It is packed in 25kg polyethylene bags or 1000kg polypropylene big bags.

**Shipping**

It should be shipped in clean, closed and sealed vehicles that do not contain odors that can permeate the product. The product should not be allowed to be shipped with a material other than citric acid.