

## Product Information

### CITROCOAT® N

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#### General Information

CITROCOAT® N is the Jungbunzlauer tradename for citric acid with a monosodium citrate coating. Compared to regular citric acid, CITROCOAT® N is less hygroscopic and less reactive with other ingredients in crystalline form. Various powdered applications, in particular effervescent formulations, which are sensitive to humidity can benefit from these outstanding properties. CITROCOAT® N provides superior stability in food applications like instant drinks, healthcare products or confectionery where premature reactions must be avoided. Also technical applications like powders and tabs for laundry and detergent applications benefit from the stabilising properties of CITROCOAT® N during storage.

#### Chemical Data

Composition	Citric acid	Monosodium citrate
Chemical Formula	$C_6H_8O_7$	$C_6H_7O_7Na$
EC No.	201-069-1	242-734-6
CAS No.	77-92-9	18996-35-5
E-No.	E 330	E 331

#### Specification

Parameters	Jungbunzlauer Limits
Identification	conforms
Lead	max. 0.5 mg/kg
Iron	max. 3 mg/kg
Mercury	max. 0.5 mg/kg
Arsenic	max. 1 mg/kg
Oxalic acid / Oxalate	max. 100 mg/kg
Chloride	max. 15 mg/kg
Sulphate	max. 100 mg/kg
Water (KF)	max. 0.3 %
Assay as citric acid	min. 97.0 %
Sodium	0.16 – 0.38 %
Calculated as monosodium citrate	1.5 – 3.5 %

#### Characteristics

CITROCOAT® N is a white granular or fine crystalline powder. It is well soluble in water, practically insoluble in ethanol.

#### Standard Granulations

Type	Particle size	Limits
F5000	> 0.500 mm	on 35 mesh
	< 0.100 mm	through 140 mesh
		max. 5 %
		max. 5 %


These specifications refer to our standardized sieving procedure. Only the mm-values are valid -the mesh-values are calculated and are meant for information.

## Legal and Safety Aspects

In Europe, citric acid anhydrous and monosodium citrate are listed as generally permitted food additives (E 330, E 331) and may be added to all foodstuffs, following the “quantum satis” principle as regulated in EU Regulation (EC) No. 1333/2008 (Annex 2), 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. Monosodium citrate is generally recognized as safe (self-affirmed GRAS) within the meaning of the Federal Food, Drug and Cosmetic Act and may be used in food and beverages in full compliance with the applicable Food and Drug Administration (FDA) regulations.

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:

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

## Standard Packaging and Storage

CITROCOAT® N is available in 25 kg multilayer paper bags or in 1000 kg big bags with polyethylene inliner.

A shelf life of 3 years (till end of the month) from the date of manufacturing has been defined for CITROCOAT® N. This shelf life is guaranteed if the product is stored in original packaging under the following storage conditions:

Temperature: < 30 °C  
Relative humidity: < 70 %

Prolonged storage at higher temperatures and/or higher humidity should be avoided in order to prevent changes in physical and chemical properties. Due to the hygroscopic properties of the material, bags should be reclosed immediately after use and stored under dry conditions.

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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.

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