



Citric Acid

Anhydrous FCC/USP/BP/EP

Description:

Citric Acid is a widely used and environment-friendly acidulant. The acid is manufactured by a submerged fermentation process, using natural carbohydrates, such as sugar and dextrose as substrates.

General Characteristics:

Formula:	C ₆ H ₈ O ₇
Molecular weight:	192.13
Appearance:	White crystals
Taste:	Tart acid taste
Odor:	Practically odorless
Solubility (gr./100 ml at 25°C):	In water - 162 In ethanol - 59 In ether - 0.75
CAS Number:	77-92-9
E-Number:	E-330

Standard Specifications:

Gadot's Citric Acid meets the standards of the Food Chemical Codex, the United States Pharmacopoeia, the British Pharmacopoeia, and the European Pharmacopoeia.

Identification	Meets FCC/USP/EP/BP tests
Appearance	Meets FCC/USP/EP tests
Assay (anhydrous basis)	99.5-100.5%
Water (K.F.)	0.2% max.
Residue on ignition	0.05% max.
Readily carbonizable substances	Passes test
Oxalates	100 ppm max.
Sulphate	Less than 150ppm
Arsenic (as As)	0.5 ppm max.
Heavy metals (as Pb)	5 ppm max.
Color of solution	99% min. (%T in 420 nm)
Clarity of solution	4 NTU max.
Lead	0.5 ppm max.
Iron	5 ppm max.
Nitrite and Nitrate	non detectible
Calcium	75 ppm max.
Mercury	0.1 ppm max.
Cadmium	0.5 ppm max.



Organic Volatile Impurities

Gadot's Citric Acid contains no tridodecylamin nor any polynuclear hydrocarbons or volatile organic impurities. These compounds are not used in the manufacturing process of the above product and if tested they will comply with the required specified limits of U.S.P and E.P.

<u>Impurities</u>	<u>Limit</u>
Benzene	2 PPM
Carbon tetrachloride	4 PPM
1,2 - Dichloroethane	5 PPM
1,1 – Dichloroethene	8 PPM
Chloroform	60 PPM
1,4 - Dioxane	100 PPM
Ethylen Oxide	10 PPM
Methylen Chloride	100 PPM
Tri Chloroethylene	100 PPM

Nutritional Values:

<u>Nutrient</u>		<u>Nutrient quantity</u>
Protein (dairy derived)	-	None
Carbohydrates	-	None
Fat	-	None
Vitamin A	-	None
Vitamin C	-	None
Thiamin	-	None
Riboflavin	-	None
Niacin	-	None
Calcium	-	75 mg/1 kg max.
Iron	-	5 mg/1 kg max.
Vitamin D	-	None
Vitamin B-6	-	None
Vitamin B-12	-	None
Phosphorus	-	None
Magnesium	-	2 mg./1000 gr.
Zinc	-	None
Pantotenic Acid	-	None
Sodium	-	2 mg./1000 gr.
Potassium	-	2 mg./1000 gr.
Artificial colors	-	product does not contain artificial color
Caloric value	-	247 Kcal/100 gr.



Allergens:

Gadot's Citric Acid doesn't contain any food allergens according to annex 3a of EU directive 2003/89.

Standard Granulation:

Grade	USS Sieve	Microns	
Regular Granular	On No. 16	> 1190	5% max.
	Through No. 80	< 180	10% max.
Standard Granular	On No. 16	> 1190	1% max.
	Through No. 50	< 300	5% max.
Fine Granular	On No. 30	> 590	1% max.
	Through No. 100	< 150	5% max.

Other requirements:

Foreign Bodies: In compliance with the FDA/ORA compliance policy guide section 555.425.

BSE/TSE

No raw materials from bovine origin are used nor are any bovine constituents present in the product.

Hormones and Antibiotics

No antibiotics or hormones are present in the product.

Mycotoxines:

Total Aflatoxines - less than 4 ppb
Aflatoxins B1 - less than 2 ppb
Aflatoxins M1 - less than 0.05 ppb

Insecticides:

Complies with food health regulations.

GMO - Status:

The product is a non GMO product and is free from any recombinant DNA technology involvement.



Irradiation / Radioactivity:

Gadot's Citric Acid was never subjected to any kind of ionized irradiation and contains no radioactivity not even in minor amounts.

Microbiological Specification:

Total viable count	-	500 CFU/gr. max.
Yeast & Molds	-	20 CFU/gr. max.
E. Coli	-	Absent in 10 gr.
Staphylococcus Aureus	-	Absent in 10 gr.
Pseudomonas Aeruginosa	-	Absent in 10 gr.
Salmonella	-	Absent in 25 gr.
Coliforms	-	10 CFU/gr. max.
Listeria Monocytogenes	-	Absent in 25 gr.

Packaging:

25 kg polyethylene-lined multi-wall paper bags, palletized and stretch-wrapped. Big bags and other packaging available on request.

Expiry Date:

Citric Acid Anhydrous has a shelf life of two years from production date. The production date is printed on the bags.

ISO 9000:

Gadot is ISO-9001 : 2008 certified.

HACCP:

Jiangsu Gadot Nuobei Biochemical Co., Ltd Food Safety Management System - HACCP comply with:

1. CODEX ALIMENTARIUS – Annex to CRC/RCP – 1969 Rev.3 (1997).
2. DS – 3027E: 1998
3. Health Ministry Guide for HACCP, March 2002 Edition.

GMP:

Jiangsu Gadot Nuobei Biochemical Co., Ltd is covering actions to strictly follow GMP requirements.



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Gadot manufacture its Citric Acid Anhydrous under strict supervision and full compliance with all GMP rules, and therefore permitted to label its product with official GMP symbol as laid down in the public health regulations.

Storage Recommendations:

Store in a cool and dry place.

Updated: Jan 24th, 2011