

# Gracefruit Ltd

## Citric Acid

### Certificate of Analysis

Creation date 24.11.2016	Your order no. / Date 005551 / 15.11.2016	Delivery note / Date of dispatch 80602631 000070 / 24.11.2016
		Date of arrival 28.11.2016
Product Citric Acid Anhydrous		Country of origin: AT

Batch 1212282	Date of production 19.11.2016	Date of expiry 11.2019
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Parameter	Unit	Specification	Value
Characteristics			conforms
colourless crystals or a white or almost white, crystalline powder; very soluble in water, freely soluble in ethanol (96%), sparingly soluble in ether; has a strongly acid taste			
Odour			conforms
typical, practically odourless			
Identification			conforms*
Appearance of solution			conforms*
clear and colourless			
Clarity of solution			conforms*
Colour of solution			conforms*
Assay	%	99.7 - 100.3	100.0
Water	%	<= 0.50	0.05
Readily carbonisable substances			conforms*
Calcium	mg/kg	<= 30	conforms*
Heavy metals	mg/kg	<= 5	conforms*
Iron	mg/kg	<= 3	conforms*
Arsenic	mg/kg	<= 1	conforms*
Lead	mg/kg	<= 0.5	conforms*
Mercury	mg/kg	<= 0.5	conforms*
Chloride	mg/kg	<= 5	conforms*
Oxalic acid/Oxalate	mg/kg	<= 100	conforms*
Sulphate	mg/kg	<= 100	conforms*
Residue on ignition	%	<= 0.05	conforms*
Sulphated ash	%	<= 0.05	conforms*
Particles > mesh 14 (1.4 mm)	%	<= 5.0	conforms*
Particles > 1.25 mm	%	<= 5	conforms*
Particles < 0.40 mm	%	<= 10	conforms*
Particles < mesh 45 (0.355 mm)	%	<= 10	conforms*

We herewith confirm that this product meets the requirements of the latest edition of the European Pharmacopoeia (Ph. Eur.), the United States Pharmacopeia (USP), the Food Chemicals Codex (FCC) and of Commission Regulation (EU) No 231/2012. All analytical methods are in accordance with the latest requirements of the Ph. Eur., the USP, the FCC or are equivalent. Test methods are available on request.

\*) analysis is confirmed based on In-Process-Control or by random testing.

