

## Certificate of Analysis

**GRACEFRUIT LIMITED  
209 GLASGOW ROAD  
LONGCROFT  
BONNYBRIDGE  
FK4 1QQ**

Material / Product / Description

100016 / / Citric Acid Anhydrous CAA N1560 in 25 kg bags

Shipping point

Batch	Quantity	Date of production	Date of expiry	Production plant, country	Country of Origin
1262510	17,000 KG	12.09.2020	09.2023	Pernhofen, AT	AT
Parameter	Unit	Specification	Value		
Characteristics			conforms		
colourless crystals or a white, crystalline powder; very soluble in water, freely soluble in ethanol (96%), sparingly soluble in ether					
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	99.9		
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 > 1.25 mm (mesh 14)	%	<= 5	conforms*		
Particles < 0.40 mm (mesh 45)	%	<= 10	conforms*		

We herewith confirm that this product is specified to meet the requirements of the latest edition of the European Pharmacopoeia (Ph. Eur.), the United States Pharmacopoeia (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.

FSSC 22000 certified by Lloyd's RQA- Reg. No. 10282998 Certificate Expiry on Aug. 27th, 2023

GMP+B1+B3 for feed certified by Lloyd's RQA- Reg. No. VNA0004790 - Certificate Expiry on July 31st, 2023

ISO 9001:2015 certified by Lloyd's RQA - Certificate No. 10277833 Certificate Expiry on July 8th, 2023

This computer generated certificate is valid without signature.

## Certificate of Analysis

Material / Product / Description

100016 / / Citric Acid Anhydrous CAA N1560 in 25 kg bags

Shipping point

Batch	Quantity	Date of production	Date of expiry	Production plant, country	Country of Origin
1262299	3,000 KG	12.09.2020	09.2023	Pernhofen, AT	AT
Parameter	Unit	Specification	Value		
Characteristics			conforms		
colourless crystals or a white, crystalline powder; very soluble in water, freely soluble in ethanol (96%), sparingly soluble in ether					
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	99.9		
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 > 1.25 mm (mesh 14)	%	<= 5	conforms*		
Particles < 0.40 mm (mesh 45)	%	<= 10	conforms*		

We herewith confirm that this product is specified to meet the requirements of the latest edition of the European Pharmacopoeia (Ph. Eur.), the United States Pharmacopoeia (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.

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