

Gracefruit Limited
 209 Glasgow Road
 Longcroft
 Bonnybridge
 FK4 1QQ

Certificate of Analysis

Date format	DD.MM.YYYY
Creation date	11.10.2019
Your order no.	027769
Date	20.09.2019
Delivery note	80779520 000070
Date of dispatch	11.10.2019
Our reference	727933 000070
Date	20.09.2019
Client number	217030
Date of arrival	14.10.2019

Material / Product / Description

137243 / / L(+)-lactic acid 88% heat stable food grade in 25 kg drums

Shipping point

Batch	Quantity	Date of production	Date of expiry	Production plant, country	Country of Origin
5124582	800 KG	27.08.2019	08.2022	Marckolsheim, FR	FR

We herewith confirm that this product meets the requirements of Commission Regulation (EU) No 231/2012 and of the latest edition of the Food Chemical Codex (FCC). All analytical methods are in accordance with the latest requirements of the FCC or equivalent methods. Test methods are available on request.

Parameter	Unit	Specification	Value
Identification			conforms
Assay	%	88.0 - 89.0	88.5
Stereochemical purity (L-isomer)	%	>= 97	conforms*
Colour (fresh)	APHA	<= 35	6
Colour (after heating at 200°C, 2H)	APHA	<= 50	22
Density (20°C)	g/cm3	1.19 - 1.21	1.21
Sulfated ash	%	<= 0.05	conforms*
Chloride	mg/kg	<= 10	conforms*
Sulphate	mg/kg	<= 10	conforms*
Cyanide	mg/kg	<= 1	conforms*
Iron	mg/kg	<= 5	conforms*
Lead (Pb)	mg/kg	<= 0.5	conforms*
Arsenic	mg/kg	<= 1	conforms*
Mercury	mg/kg	<= 1	conforms*
Heavy Metals (as Pb)	mg/kg	<= 5	conforms*
Calcium	mg/kg	<= 20	conforms*
Citric oxalic phosphoric tartaric acid			conforms*
Readily carbonisable substances			conforms*
Reducing sugars			conforms*