

# Certificate of Analysis

## GRACEFRUIT LTD

**Date:** 26/09/2018  
**Product Code:** LACTICF88.03

209 Glasgow Road  
Longcroft  
Bonnybridge

FK4 1QQ  
UNITED KINGDOM

**Batch Number:** 5111371

**Product Name:** JBL L(+)-LACTIC ACID 88%

**Quantity:** 1                      KEG                      **Picking List No:** 049197

Analysis Parameters	Type	Limit 1	Limit 2	Result
Assay (%)	R	87.5	88.5	88.3
Stereochemical purity (L-isomer) min 97%	=	conforms		conforms
Colour (fresh) APHA	<	50		3
Colour (6 months, 25°C) <50	=	conforms		conforms
Identification	=	conforms		conforms
Sulphated ash (max 0.1%)	=	conforms		conforms
Chloride (max 10 mg/kg)	=	conforms		conforms
Sulphate (max 10 mg/kg)	=	conforms		conforms
Cyanide (max 5 mg/kg)	=	conforms		conforms
Iron (max 10 mg/kg)	=	conforms		conforms
Arsenic (max 1 mg/kg)	=	conforms		conforms
Lead (max 0.5 mg/kg)	=	conforms		conforms
Mercury (max 1 mg/kg)	=	conforms		conforms
Heavy metals (as Pb) (max 10 mg/kg)	=	conforms		conforms
Calcium (max 20 mg/kg)	=	conforms		conforms
Citric, oxalic, phosphoric, or tartaric acid	=	conforms		conforms
Readily carbonisable substances	=	conforms		conforms
Reducing sugars	=	conforms		conforms
Date of manufacture	D			01/12/17
Date of expiry	D			01/12/19

**We confirm that this material conforms to the agreed specification. This certificate is computer generated and therefore does not require a signature.**

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## Key

>: Greater than or equal to

<: Less than or equal to

=: Equals

R: Range

D: Date

T: Text