



**PURAC**

**CERTIFICATE OF ANALYSIS**

<b>Order nr</b>	863581	<b>Cust order Ref</b>	FS570102/863581
<b>Product</b>	PURAC FCC 88 drum25		
	L(+)-Lactic Acid FCC Special 88%		
<b>Lot No</b>	1407001610		
<b>Manufacturing Date</b>	18-July-2014	<b>Retest Date</b>	17-July-2019

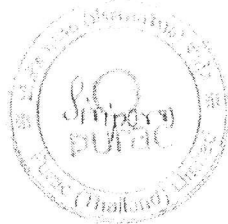
Test	Units	Specification	Results
Colour	APHA	<=50	13
Assay	%	87.5 - 88.5	88.2

Parameters not tested in all lots but validated through in-process or final testing.

Test	Units	Specification
Odour		Agreeable
Stereochemical purity	%	>=97
Sulphated ash LA	%	<=0.1
Heavy metals	ppm	<=10
Iron	ppm	<=10
Lead	ppm	<=0.50
Mercury	ppm	<=1.00
Cyanide	ppm	<=5.00
Citric, oxalic, phosphoric and tartaric		Passes test FCC
Arsenic	ppm	<=1
Positive test for lactate		1 in 10 in water litmus paper
Density (20°C)	g/ml	1.20 - 1.22
Calcium	ppm	<=20
Chloride	ppm	<=10
Sulphate	ppm	<=20
Sugars/reducing substances		Passes test FCC
Readily carbonizable substances		Passes test**
Volatile fatty acids		Passes test**
Ether insolubles	%ww	<=0.70
Methanol	%	<=0.200
Form		Syrupy liquid

\*\*Passes test of latest version of FCC, JSFA, 231/2012/EC  
This lot complies with: FCC / JSFA / 231/2012/EC

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Saowaphan Chansamuth  
Lab Manager



pure by nature