

Gracefruit Limited
 209 Glasgow Road
 Longcroft
 Bonnybridge
 FK41QQ

Glycerine (Palm Free)		
MKR Reference:	POR05429-3	
Order Number:	814337	
Lot Number:	EM0965-1812100614	
Tanker Reference:	MEMU 153363-6	
Delivery Date:	18.12.18	
Quantity:	27,640KG	
Date of Manufacture:	December 2018	
Expiry Date:	December 2020	
Analysis		
Test Description	Specification (Min-Max)	Result
Colour, APHA:	5max	2
Appearance of solution:	Pass EP	Pass
Water, Karl Fischer,%:	0.5 max	0.04
Relative Density 20/20°C, g/cm3:	1.261 min	1.262
Glycerine Assay,%:	99.5-101.0	99.9
Acidity (ml 0.1M NaOH):	0.2 max	0.0
Alkaline substances:	Pass EP	Pass
Impurity A and related substances:	Pass EP	Pass
-Diethylene glycol, %	0.1 max	<0.1
-Impurity <Glyc	0.1 max	<0.1
-Sum Impurity> Glyc	0.5 max	<0.5
Sugars:	Pass EP	Pass
Total Heavy Metals, mgPb/kg:	5 max	Pass
Chloride, mg/kg:	10max	Pass
Aldehydes, mg/kg:	10max	Pass
Sulphated Ash,%:	0.01 max	0.00
Halogenated Compounds, ppm:	< 35 mln	Pass
Esters (ml 0.1M HCl):	8.0mln	9.1
Refractive Index 20 (EP):	1.438 -1.4750	1.474