

Gracefruit Ltd

146 Glasgow Road, Longcroft, Stirlingshire, FK4 1QL

www.gracefruit.com

VAT Number: 935 8115 14

EORI Number: GB9358 1151 4000

Company Number: SC374368

Certificate of Analysis

Description: Castor Oil, CP, Organic

Lot No: 109535

Inci Name: Ricinus Communis (Castor) Seed Oil

Cas No: 8001-79-4

Einecs No: 232-293-8

ANALYTICAL DETAILS	RANGE	RESULT
APPEARANCE @20°C	Clear to pale yellow viscous liquid	Conforms
ODOUR	Very slight, Characteristic	Conforms
COLOUR (LOVIBOND 5.25" CELL)	20Y, 2.0R	N/D
RELATIVE DENSITY @ 20°C (GM/ML)	0.954 – 0.980	0.960
REFRACTIVE INDEX @ 40°C	1.470 – 1.481	1.478
LIGHT ABSORBANCE @ 269NM	≤ 1.0	0.122
OPTICAL ROTATION @ 20°C (°)	+ 3.5 to + 6.0	+ 3.6
FREE FATTY ACID (% AS OLEIC)	≤ 1.0	0.12
IODINE VALUE (CALC)	82 – 90	85.25
PEROXIDE VALUE (Meq / kg)	≤ 5.0	0.36
SAPONIFICATION VALUE (mq KOH/g)	176 – 187	180.66
UNSAAPONIFIABLE MATTER (%)	≤ 2.0	0.36
ACID VALUE (MGKOH/GM)	≤ 2.0	0.24
HYDROXYL VALUE (MGKOH/GM)	≥ 150	164.00
MOISTURE (%)	≤ 0.3	0.19

FATTY ACID PROFILE (MAJOR ACIDS)	ACID NAME	C-CHAIN	RANGE	RESULT
	PALMITIC	C16:0	≤ 2.0	1.36
	STEARIC	C18:0	≤ 2.5	1.42
	OLEIC	C18:1	2.0 – 6.0	3.43
	RICINOLEIC	C18:1 (OH)	85.0 – 95.0	87.36
	LINOLEIC	C18:2	1.0 – 7.0	5.28
	ALPHA LINOLENIC	C18:3	≤ 1.0	N/D
	ICOSENOIC	C20:1	≤ 1.0	0.39
	OTHERS	-	≤ 1.0	0.76

Date Produced: March 2015

Best Before: March 2017

R00114

05/03/2015