

# Certificate of Analysis

## Gracefruit Ltd

Raw Material Code: R00113

Product Description: Castor Oil, BP

INCI Name: Ricinus Communis Seed Oil

EINECS Number: 232-293-8

CAS Number: 8001-79-4

Date of Production: December-2016

Best Before: December-2018

Lot Number: L000208833

Retested date:

Analytical Details	Result
Appearance	A clear almost colourless or slightly yellow viscous, hygroscopic liquid
Odour	Very slight and characteristic
Specific Gravity @ 20°C	0.960
Refractive index @ 20°C	1.479
Free Fatty Acid (% as Oleic)	0.38
Moisture (%)	0.17
Peroxide Value (Meq O <sub>2</sub> /kg)	0.34
Saponification Value	180.65
Unsaponifiable Matter	0.36
Iodine Value	85.55
Colour (Gardner)	1G
Acid Value (mg KOH/g)	0.76
Optical Rotation	+3.6
Hydroxyl Value (mg KOH/g)	163.82
Absorbance 269nm	0.264

Palmitic Acid	C16:0	1.22
Stearic Acid	C18:0	1.38
Oleic Acid	C18:1	3.81
Ricinoleic Acid	C18:1 (OH)	87.9
Linoleic Acid	C18:2	4.97
Alpha Linolenic Acid	C18:3	0.4
Eicosenoic Acid	C20:1	Not Detected
Others	-	<1.0