

## CERTIFICATE OF ANALYSIS

**PRODUCT NAME: CASTOR OIL BP, COLD PRESSED**

**LOT NUMBER: LOT0003865**

PRODUCT INCI: RICINUS COMMUNIS SEED OIL

PRODUCT CODE: K0107

CAS NUMBER: 8001-79-4

EINECS NUMBER: 232-293-8

MANUFACTURING METHOD: COLD PRESSED

MANUFACTURING DATE: 13/08/2019

BEST BEFORE END: 13/02/2021

ANALYTICAL DETAILS	RANGE %	RESULTS
APPEARANCE	VISCOUS OILY LIQUID	-
ODOUR	CHARACTERISTIC	-
COLOUR	CLEAR – PALE YELLOW	-
RELATIVE DENSITY @ 20°C (G/ML)	0.958 – 0.970	0.9599
REFRACTIVE INDEX @ 20°C	1.477 – 1.481	1.4786
PEROXIDE VALUE (MEQ O <sub>2</sub> / KG)	<10.0	1.75
IODINE VALUE (G/100G)	82.0 – 90.0	84.45
FREE FATTY ACID	<1.0	0.19
ACID VALUE	<1.5	0.38
SAPONIFICATION VALUE (MG KOH/GR)	176.0 – 187.0	180.5
HYDROXL VALUE (MGKOH/G)	>160.0	166.02
UNSAAPONIFIABLE MATTER (%)	<0.8	0.35
OPTICAL ROTATION @ 20°C	+3.5 – +6.0	+3.6
MOISTURE & IMPURITIES	<0.30	0.10
SPECIFIC ABSORBANCE	<0.7	-

FATTY ACID PROFILE		RANGE %	RESULTS
C-CHAIN	ACID NAME		
C16:0	PALMITIC	<2.0	1.06
C18:0	STEARIC	<2.5	1.23
C18:1	OLEIC	2.5 – 6.0	3.47
C18:1	RICINOLEIC	85.0 – 92.0	88.31
C18:2	LINOLEIC	2.5 – 7.0	4.48
C18:3	LINOLENIC	<1.0	0.47
C20:1	EICOSENOIC	<1.0	0.31