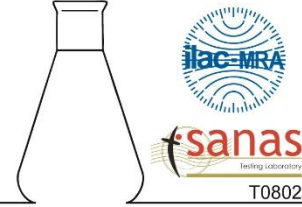


PRECISION OIL LABORATORIES



(Pty) Ltd | Co. Reg No. 2013/091831/07 | VAT No. 4240267635

Consulting Room No. B7, Ivory Tusk Lodge, 75 Douglas Street, Tzaneen | P.O Box 4513 Tzaneen 0850
Tel: 015 004 0010 | Cell: 072 491 6044 | info@precisionoils.co.za | www.precisionoils.co.za

Certificate of Analysis Amended report no: R23/12/559B

Roeloff van Rooyen
Inca Green (pty) ltd
127 Hlobane street
Vryheid
KwaZulu-Natal
3100

Tel: 072 928 7455

Email: roeloff@incagreen.co.za ;

Date: 10/11/2023

Order Number: IGMO 002

Sample Description: Moringa Oleifera Oil

Sample: IGMO 002

Nature of amendment: Fatty acid profile added

Lab no: P23/12/559

Analyses:

Received: 23/10/2023

Commenced: 25/10/2023

Completed: 09/11/2023

Methods used:

Method name	Method number	Method
Peroxide Value	POL 004	AOCS Method Cd 8-53
Free Fatty Acids/Acid Value	POL 005	Based on AOCS Method Cd 3d-63
Anisidine Value	POL 006	AOCS Method Cd 18-90
Iodine Value	POL 009	AOCS Method Cd 1c-85
Fatty Acid profile	POL 015	Based on AOCS Method Ce 2-66

Results:

The results are applicable to sample condition at receipt. The results relate only to the items tested. This certificate shall not be reproduced except in full, without the written approval of the Laboratory. The results are reported with the expanded uncertainty at a confidence level of 95% using a factor of k=2. LOQ = limit of quantitation

Sample:	Result	Uncertainty	LOQ
Peroxide Value (meq/kg oil)	Lower than LOQ		0.80
Acid Value (mg KOH/g sample)	2.50	± 0.39	0.11
Free Fatty Acids (g oleic acid/100g oil)	1.25	± 0.19	0.056
Anisidine Value (mmol/kg oil)	None detected (LOD = 0.16)		0.52
Iodine Value	70.1	± 1.3	1.1

Limit of detection (LOD) = 0.06 g Fatty acid/100g Fatty acids.

Limit of quantitation (LOQ) = 0.14 g Fatty acid/100g Fatty acids.

Values below the limit of quantitation cannot be accurately quantified.

Fatty Acid	g Fatty acids/100g Fatty Acids	Uncertainty
*C4:0 Butyric acid	None detected	
*C6:0 Caproic acid	None detected	
*C8:0 Caprylic acid	None detected	
*C10:0 Capric acid	None detected	
*C12:0 Lauric acid	None detected	
C14:0 Myristic acid	Lower than LOQ	
C15:0 Pentadecylic acid	None detected	
C16:0 Palmitic acid	5.47	± 0.49
C16:1 n7 Palmitoleic acid	1.29	± 0.24
C17:0 Margaric acid	Lower than LOQ	
C17:1 n7 Ginkgolic acid	None detected	
C18:0 Stearic acid	5.02	± 0.29
C18:1 n9 trans Oleic acid	None detected	
C18:1 n9 cis Oleic acid	70.7	± 1.5
*C18:1 n7 Vaccenic acid	6.3	
C18:2 n6 trans Linoleic acid	None detected	
C18:2 n6 cis Linoleic acid	0.584	± 0.027
C18:3 n6 Linolenic acid	None detected	
C18:3 n3 Linolenic acid	0.191	± 0.029
C20:0 Arachidic acid	2.79	± 0.16
C20:1 n9 Gondoic acid	1.56	± 0.25
C20:2 n6 Eicosadienoic acid	None detected	
C20:3 n3 Eicosatrienoic acid	None detected	
C20:3 n6 Eicosatrienoic acid	None detected	
C20:4 Arachidonic acid	None detected	
C20:5 Eicosapentaenoic acid	None detected	
C21:0 Heneicosanoic acid	None detected	
C22:0 Behenic acid	4.78	± 0.50
C22:1 n9 Erucic acid	None detected	
C24:0 Lignoceric acid	1.08	± 0.19
C24:1 n9 Nervonic acid	None detected	
Unknown 1	Lower than LOQ	

Note: All methods/results marked with an asterisk () are not SANAS accredited*

Do not hesitate to contact me should you need any additional information.

Rejaen Botha
Quality manager and Technical signatory

Annemie van Zyl
Laboratory analyst and Technical signatory