

HENRY LAMOTTE OILS GMBH, POSTFACH / P.O. BOX 10 38 49, D-28038 BREMEN

Metapharmaceutical Ind., S.L.

production date: 09/2017

expiry date: 09/2019

Josep Plà, 163, 2º 5ª

08020 Barcelona

Spain

Order No.: 2017 - 1 / 426 dated 02.11.2017

Certificate of Analysis – KEY BRAND

02.11.2017

MEDICINAL COD LIVER OIL, PH.EUR., IDENTITY PRESERVED

lot: 8002468003

Ph.Eur.9, 2017, Typ A, BP 2017 Type A

Appearance	complies
Specific gravity (20 degree C)	0,924
Specific gravity (25 degree C)	0,922
Refractive index (20 degree C)	1,478
Acid value	0,07
Anisidine value	9,6
Peroxide value	complies
Iodine value	156
Saponification value	188
Water	0,01 %
Unsaponifiable Matter	0,8 %
Cold test 3h at 0°C	clear
Colour gardner	4,3
Colour lovibond 5 1/4" yellow	44,0
Colour lovibond 5 1/4" red	1,5

Fatty acid composition

Saturated fatty acids:

Lauric acid	(C 12:0)	< 0,1 %
Myristic acid	(C 14:0)	3,9 %
Pentadecane acid	(C 15:0)	0,3 %
Palmitic acid	(C 16:0)	10,4 %
Margaric acid	(C 17:0)	0,5 %
Stearic acid	(C 18:0)	2,2 %
Arachidic acid	(C 20:0)	< 0,1 %
Behenic acid	(C 22:0)	< 0,1 %
Lignoceric acid	(C 24:0)	< 0,1 %

Unsaturated fatty acids:

Myristoleic acid	(C 14:1)	0,2 %
Palmitoleic acid	(C 16:1)	7,1 %
cis-Vaccenic acid	(C 18:1 (n-7))	4,4 %
Oleic acid	(C 18:1 (n-9))	15,0 %
Gadoleic acid	(C 20:1 (n-11))	2,2 %
Gondoic acid	(C 20:1 (n-9))	10,7 %
Erucic acid	(C 22:1 (n-9))	1,0 %

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Cetoleic acid	(C 22:1 (n-11))	8,5 %
Polyunsaturated fatty acids:		
Linoleic acid	(C 18:2)	1,6 %
Linolenic acid	(C 18:3 (n-3))	0,6 %
Morotic acid	(C 18:4 (n-3))	2,1 %
Eicosanedienoic acid	(C 20:2)	0,3 %
Eicosanetrienoic acid	(C 20:3 (n-3))	< 0,1 %
Eicosanetrienoic acid	(C 20:3 (n-6))	< 0,1 %
Eicosanetraenoic acid	(C 20:4 (n-3))	< 0,1 %
Arachidonic acid	(C 20:4 (n-6))	0,7 %
Eicosapentaenoic acid	(C 20:5 (n-3), EPA)	7,6 %
Docosatetraenoic acid	(C 22:4)	0,5 %
Docosapentaenoic acid	(C 22:5 (n-3), DPA)	1,2 %
Docosahexaenoic acid	(C 22:6 (n-3), DHA)	10,4 %
Vitamin A		1200 i.U./g
Vitamin D3		96 i.U./g
Pesticides		
Organochloropesticides		complies to RHmV
Organophosphoruspesticides		complies to RHmV
Toxaphen		complies to RHmV
Polychlorinated biphenyls		
28		< 0,02 mg/kg
52		< 0,02 mg/kg
101		< 0,02 mg/kg
138		< 0,02 mg/kg
153		< 0,02 mg/kg
180		< 0,02 mg/kg
Dioxin		
WHO-PCDD/F-TEQ (Total Dioxins)		0,253 pg/g
WHO-PCDD/F-PCB-TEQ (Dioxins + dioxin-like PCBs)		0,771 pg/g
Identity		complies
Purity		complies

This product in question is not affected by the GMO problem. Therefore this product does not need to be labelled regarding any genetic modification as per the new GMO regulations 1829/2003 and 1830/2003.

HENRY LAMOTTE OILS GMBH

Computer edited certificate - valid without signature