

# CERTIFICATE OF ANALYSIS

Omega-3-Acid Triglycerides



## T3322A15E261

GOLDEN OMEGA

**Product code:** OT3322A1

**Analysis code:** PT-36815

**Manufacturing Date:** May 26, 2015

**Retest Date:** May 2018

**Specification:** SMT-SPC-016-v05

Omega-3-Acid Triglycerides TG3322

Quality Attribute	Limit	Unit	Result	Method
EPA (Eicosapentaenoic acid)	(*) min. 33	A %	36	Ph.Eur. 07/2010:20429
DHA (Docosahexaenoic acid)	(*) min. 22	A %	25	
Total omega-3 fatty acids	(*) min. 65	A %	71	
EPA (Eicosapentaenoic acid as FFA)	min. 288	mg/g	297	
DHA (Docosahexaenoic acid as FFA)	min. 193	mg/g	214	
Total omega-3 fatty acids as FFA	min. 570	mg/g	592	
EPA (Eicosapentaenoic acid as TG)	min. 300	mg/g	311	
DHA (Docosahexaenoic acid as TG)	min. 200	mg/g	223	
Total omega-3 fatty acids as TG	min. 600	mg/g	619	
Ethyl esters	max. 5.0	A %	< 5.0	Ph.Eur.01/2009:1352
Oligomers	max. 3.0	A %	< 3.0	
Partial glycerides	max. 50.0	A %	33.0	
Triglycerides	min. 50.0	A %	67.0	
Cholesterol	max. 2	mg/g	1.1	Ph.Eur. 07/2010:20432
Peroxide value (POV)	max. 3.0	meq/kg	0.2	Ph.Eur. 01/2008:20505
Anisidine value (p-AV)	max. 10.0	-	5.1	Ph.Eur. 01/2008:20536
Total oxidation (2POV + p-AV)	max. 15.0	-	5.5	Calculated
Acid Value	max. 1.0	mg KOH/g	0.3	Ph.Eur. 01/2008:20501
Unsaponifiable matter	max. 1.5	w/w %	1.2	Ph.Eur. 01/2008:20507
Absorbance at 233 nm	max. 0.73	AU	0.27	Ph. Eur.01/2009:1352
Specific gravity (25° C)	min. 0.93 max. 0.96	-	0.94	AOCS To 1a-64
Colour Gardner	max. 6	-	5	AOCS Td 1a-64
Cold test	pass 3 h/0 °C	-	passed	Modified AOCS Cc 11-53
Mix tocopherols (antioxidant)	min. 2.0 max. 4.0	mg/g	2.8	HPLC-FLD, in house
Lead (Pb)	max. 0.04	mg/kg	< 0.001	EN 15763:2009
Cadmium (Cd)	max. 0.01	mg/kg	< 0.001	EN 15763:2009
Mercury (Hg)	max. 0.01	mg/kg	< 0.001	EN 15763:2009
Arsenic (As)	max. 0.1	mg/kg	0.005	EN 15763:2009
Benzo(a)pyrene	max. 1.0	µg/kg	0.00168	SPE-GC-MS
Sum of benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene and chrysene	max. 10.0	µg/kg	0.343	
PCB 209 congeners (include IUPAC No 28, 52, 101, 118, 138, 153, 180)	max. 0.01	mg/kg	0.548	GC-HRMS
Dioxin and Furans (WHO-PCDD/F-TEQ)	max. 1.0	pg/g	< 0.5	GC-HRMS
Dioxin & furans and dioxin-like PCBs (WHO-PCDD/F-PCB TEQ)	max. 2.0	pg/g	< 2.0	GC-HRMS

**Comments:**

(\*) This is an estimation and not intended to be a measurable variable in determining the potency of the product.

**Certificate issue date:** March 30, 2017

**Signed by:** Dr. Javier del Campo

**Position:** Quality Control Manager

AUTHORISED FACSIMILE

VALIDATED WITH SIGNATURE

ORIGINAL KEPT IN QC GOLDEN OMEGA