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CERTIFICATE OF ANALYSIS

Pure Omega One DHA 300mg Softgel Capsule, Lot#130391

Date received: 10/09/2013

NDI#: 11342013

Analysis for:

Source-Omega LLC

Attention: Scott Doughman

11312 US 15-501 North, Suite 107-122

Chapel Hill, NC 27517

919 360-5275

Date: 26/09/2013

M Wlodek

Martha Wlodek, A.C.T., B.A., B.Ed.
Director, Product Analytics
Dated: 26/09/2013

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Manager, Sample Processing
Dated: 26/09/2013

Oxidation Analysis

Component	Analytical Method	Specification	Result	Units	Meets Specification
Anisidine Value	AOCS Cd 18-90	<= 20	18.39	meq/kg	Yes
Peroxide Value	AOCS Cd 8-53	<= 5	1.55	meq/kg	Yes
Total Oxidation	Calculation	< 26.00000	21.49	meq/kg	Yes

Essential Fatty Acid Profile

Fatty Acid as TG		mg per cap	%
C4:0	Butyric Acid	0.00	0.0
C6:0	Caproic Acid	0.00	0.0
C8:0	Caprylic Acid	0.00	0.0
C10:0	Capric Acid	0.00	0.0
C12:0	Lauric Acid	0.00	0.0
C14:0	Myristic Acid	4.28	0.7
C14:1	Myristolic Acid	0.15	0.0
C15:0	Pentadecanoic Acid	0.93	0.1
C16:0	Palmitic Acid	138.62	22.1
C16:1	Palmitoleic Acid	1.07	0.2
C18:0	Stearic Acid	9.45	1.5
C18:1	Oleic Acid	10.09	1.6
C18:2N6	Linoleic Acid	21.92	3.5
C18:3N6	Gamma-linolenic Acid	0.47	0.1
C18:3N3	Alpha-linolenic Acid	0.98	0.2
C18:4N3	Stearidonic Acid	1.13	0.2
C20:0	Arachidic Acid	1.52	0.2
C20:1	Eicosenoic Acid	0.00	0.0
C20:2N6	Eicosadienoic Acid	0.00	0.0
C20:3N6	Dihomo-gamma-linolenic Acid	4.05	0.6
C20:4N6	Arachidonic Acid	0.76	0.1
C20:3N3	Eicosatrienoic Acid	0.19	0.0
C20:4N3	Eicosatetraenoic Acid	4.18	0.7
C20:5N3 (EPA)	**Eicosapentaenoic Acid**	3.34	**0.5**
C22:0	Behenic Acid	0.00	0.0
C22:1	Cetoleic Acid	0.00	0.0
C22:2N6	Docosadienoic Acid	0.00	0.0
C22:4N6	Adrenic Acid	72.23	11.5
C22:5N6	Docosapentaenoic Acid (n-6)	0.00	0.0
C22:5N3	Docosapentaenoic Acid (n-3)	0.81	0.1
C22:6N3 (DHA)	**Docosahexaenoic Acid**	350.66	**55.9**
C24:0	Lignoceric Acid	0.38	0.1
C24:1	Nervonic Acid	0.00	0.0
Total Fatty Acids		627.21	**100.0**

Saturated	**155.18**	**24.7**
Monounsaturated	11.32	**1.8**
Polyunsaturated	460.72	**73.5**

Omega-3	**361.29**	**57.6**
Omega-6	99.43	**15.9**

Modified AOCS Official Method Ce 1b-89

Dioxin Analysis (Method USEPA 1613B)

POLYCHLORINATED DIBENZO DIOXIN (7 OF 75 TOXIC SUB-SET)	Result (ppt - pg/g)
2378-TCDD	<0.11
12378-PeCDD	<0.13
123478-HxCDD	<0.16
123678-HxCDD	<0.16
123789-HxCDD	<0.17
1234678-HpCDD	<0.42
OCDD	<0.81

Furan Analysis (Method USEPA 1613B)

POLYCHLORINATED DIBENZO FURANS (10 OF 135 TOXIC SUB SET)	Result (ppt - pg/g)
2378-TCDF	<0.18
12378-PeCDF	<0.14
23478-PeCDF	<0.37
123478-HxCDF	1.20
123678-HxCDF	<1.1
234678-HxCDF	<1.1
123789-HxCDF	<1.3
1234678-HpCDF	1.35
1234789-HpCDF	0.844
OCDF	3.91

Notes:

- ppt - parts per trillion
- ND - none detected (detection limits in brackets)

Dioxin and Furan (PCDD/F) Toxicity Summary

WHO TEQ (2005) Dioxin and Furan (PCDD/F):	Upper Bound	0.920 ppt
	Lower Bound	0.143 ppt

Dioxin and Furan Toxicity Cut-Offs

International Fish Oil Standard (IFOS) 5-Star Rating (PCDD/F WHO TEQ 2005)	Upper Bound	1.0 ppt
European Union (EU 2012) Cut-Off for Marine Oil (PCDD/F WHO TEQ 2005)	Upper Bound	1.75 ppt
Council of Responsible Nutrition (CRN 2006) / GOED Voluntary Monograph Cut-Off (PCDD/F WHO TEQ/g 2005)	Upper Bound	2.00 ppt
European Union (EU 2012) Cut-Off for Vegetable Oil (PCDD/F WHO TEQ 2005)	Upper Bound	0.75 ppt

Notes:

- Upper Bound assumes detection limits as the value when no substance is detected
- Lower Bound assumes zero as the value when no substances is detected
- WHO-TEQ, Martin van den Berg et al., The 2005 World Health Organisation Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin- like Compounds. Toxicological Sciences 93(2), 223–241 (2006)

Dioxin-like PCB Analysis (Method USEPA 1668A/C)

CHLORINATED BIPHENYL CONGENERS (12 of 209 TOXIC SUB SET)	Result (ppt - pg/g)
PCB #81 (tetra)	<0.30
PCB #77 (tetra)	<0.36
PCB #123 (penta)	<1.1
PCB #118 (penta)	<1.4
PCB #114 (penta)	<1.0
PCB #105 (penta)	<1.1
PCB #126 (penta)	<0.38
PCB #167 (hexa)	<1.3
PCB #156 / 157 (hexa)	<1.7
PCB #169 (hexa)	<0.22
PCB #189 (hepta)	<1.7

Dioxin-like PCB Toxicity Summary

WHO TEQ (2005) Toxic Dioxin-Like PCBs	**Upper Bound**	**0.0450 ppt**
	Middle Bound	**0.0225 ppt**
	Lower Bound	**0.00 ppt**

Dioxin-like PCB Toxicity Cut-Offs

International Fish Oil Standard (IFOS) 5-Star Rating (DL-PCB WHO TEQ 2005)	**Upper Bound**	**1.5 ppt**

CRN / GOED Voluntary Monograph Cut-Off (DL-PCBs WHO TEQ/g 2005)	**Upper Bound**	**3.00 ppt**

Dioxin, Furan & Dioxin-like PCB Toxicity Summary

WHO TEQs (2005) Total PCDD, PCDF & DL-PCB	Upper Bound	0.965 ppt
	Middle Bound	0.821 ppt
	Lower Bound	0.143 ppt

Dioxin, Furan & Dioxin-like PCB Cut-Offs

GOED Monograph (2012) for Marine Oil (Total PCDD, PCDF & DL-PCB WHO TEQ/g 2005)	Upper Bound	4.0 ppt (pg/g)
EU 2012 Cut-Off for Marine Oil (PCDD/F & DL-PCB WHO TEQ 2005)	Upper Bound	6.0 ppt
EU 2012 Cut-Off for Vegetable Oil (PCDD/F & DL-PCB WHO TEQ 2005)	Upper Bound	1.25 ppt
GOED Monograph (2012) Proposition 65 for Marine Oil (Total PCDD, PCDF & DL-PCB WHO TEQ/g 2005)	Upper Bound	3.00 ppt Effective Dec 31, 2012

Total PCB Summary (Method USEPA 1668 A/C)

TOTAL PCBs	Lower Bound	0.184 ppb

Total PCB Cut-Offs

International Fish Oil Standard (IFOS) 5-Star Rating (Total PCBs)	Lower Bound	45 ppb
GOED 2012 Voluntary Monograph (sum of all PCB congeners)	**Lower Bound**	**90 ppb** (0.09 mg/kg)
NSF / ANSI 173 Dietary Supplement Standard Part 5.3.6.1 (Total PCBs)	**Lower Bound**	**90 ppb** (0.09 mg/kg)
Health Canada Consumption Tolerance Limit for Fish Oil (Total PCBs)	**Lower Bound**	**100 ppm** (mcg/g of body weight per day)
FDA Tolerance Limit for PCBs in Foods (Total PCBs)	**Lower Bound**	**2,000 ppb**

Marker PCB Analysis (Method USEPA 1668 A/C)

PCB CONGENER	Results ppt (pg/g)	
PCB-28	1.73	
PCB-52	4.32	
PCB-101	<0.85	
PCB-153	<1.1	
PCB-138	<1.5	
PCB-180	<1.7	
Total (ICES-6)[1] Marker PCBs:	**Upper Bound**	**0.0112 ppb**
	Lower Bound	**0.00605 ppb**
PCB CONGENER	**Results ppt (pg/g)**	
PCB-118	<1.4	
Total (ICES-7)[2] Marker PCBs:	**Upper Bound**	**0.0126 ppb**
	Lower Bound	**0.00605 ppb**

Marker PCB Summary Cut-Offs

CRN 2006 Voluntary Monograph Cut-Off for Omega-3 Products (ICES-7 Marker PCBs)	**Upper Bound**	**90 ppb** (0.09 mg/kg)
EU 2012 Cut-Off for Marine Oil (ICES-6 Marker PCBs)	**Upper Bound**	**200 ppb**
EU 2012 Cut-Off for Vegetable Oil (ICES-6 Marker PCBs)	**Upper Bound**	**40 ppb**

Notes:

1. The ICES-6 are a subset of the ICES-7, that does not include congener 118, and are used to establish cut-offs by the EU.
2. International Council for the Exploration of the Sea has identified seven non-dioxin-like chlorinated biphenyls (ICES-7) that include Congeners 28, 52, 101, 118, 153, 138 and 180.

Heavy Metals (Contaminants)

Component	Analytical Method	Specification	Result	Units	Meets Specification
Total Arsenic	USEPA 3051, 200.7, 200.8	< 0.1	< 0.05	ppm	Yes
Cadmium	USEPA 3051, 200.7, 200.8	< 0.1	< 0.01	ppm	Yes
Inorganic Arsenic (Speciation)	EPA 1632	n/a	Not Detected	ppm	n/a
Lead	USEPA 3051, 200.7, 200.8	< 0.1	< 0.01	ppm	Yes
Mercury	USEPA 245.6 (Cold Vapour AAS)	< 0.1	< 0.005	ppm	Yes

Contaminants

Component	Analytical Method	Specification	Result	Units	Meets Specification
Cyanobacterial Toxins (microcystins)	ELISA	N/A	<10	ppb	N/A
Aflatoxin	AOAC	N/A	<20	ppb	N/A

Residual Solvent Analysis

Component	Analytical Method	Specification	Units	Result	Meets Specification
Benzene	USP <467> Class I	< 2	ppm	< MRL	Yes
Carbon Tetrachloride	USP <467> Class I	< 4	ppm	< MRL	Yes
1,2-Dichloroethane	USP <467> Class I	< 5	ppm	< MRL	Yes
1,1-Dicholorethene	USP <467> Class I	< 8	ppm	< MRL	Yes
1,1,1-Trichloroethane	USP <467> Class I	< 1500	ppm	< MRL	Yes
Acetonitrile	USP <467> Class II	< 410	ppm	< MRL	Yes
Chlorobenzene	USP <467> Class II	< 360	ppm	< MRL	Yes
Chloroform	USP <467> Class II	< 60	ppm	< MRL	Yes
Cyclohexane	USP <467> Class II	< 3880	ppm	< MRL	Yes
1,2-Dichloroethene	USP <467> Class II	< 1870	ppm	< MRL	Yes
1,2-Dimethoxyethane	USP <467> Class II	< 100	ppm	< MRL	Yes
1,4-Dioxane	USP <467> Class II	< 380	ppm	< MRL	Yes
Hexane	USP <467> Class II	< 290	ppm	< MRL	Yes
Methanol	USP <467> Class II	< 3000	ppm	< MRL	Yes
Methylbutylketone	USP <467> Class II	< 50	ppm	< MRL	Yes
Methylcyclohexane	USP <467> Class II	< 1180	ppm	< MRL	Yes
Methylene Chloride	USP <467> Class II	< 600	ppm	< MRL	Yes
Nitromethane	USP <467> Class II	< 50	ppm	< MRL	Yes
Pyridine	USP <467> Class II	< 200	ppm	< MRL	Yes
Tetrahydrofuran	USP <467> Class II	< 720	ppm	< MRL	Yes
Tetralin	USP <467> Class II	< 100	ppm	< MRL	Yes
Toluene	USP <467> Class II	< 890	ppm	< MRL	Yes
Trichloroetylene	USP <467> Class II	< 80	ppm	< MRL	Yes
Xylene*	USP <467> Class II	< 2170	ppm	< MRL	Yes

< MRL = Less than the Maximum residual limit listed in Residual Solvents USP 467

*** Usually 60% m-xylene, 14% p-xylene, 9% o-xylene with 17% ethyl benzene**

Physical Properties

Component	Analytical Method	Specification	Result	Units	Meets Specification
Capsule Weight	USP 2091	N/A	0.7119	gram	N/A

Microbial Contaminants

Component	Analytical Method	Specification	Result	Units	Meets Specification
Total Aerobic Plate Count	USP 33 (2021/2022)	Positive/Negative	<10	cfu/gram	Yes
Yeast and Mould	USP 33 (2021/2022)	Positive/Negative	<10	cfu/gram	Yes
E.coli	USP 33 (2021/2022)	Positive/Negative	Negative	Positive/Negative	Yes
Salmonella	USP 33 (2021/2022)	Positive/Negative	Negative	Positive/Negative	Yes
Staphylococcus aureus	USP 33 (2021/2022)	Positive/Negative	Negative	Positive/Negative	Yes
Pseudomonas aeruginosa	USP 33 <62>	Not Applicable	Negative	Positive/Negative	Yes

Genetic Testing

Component	Analytical Method	Specification	Result	Units	Meets Specification
GMO-Free	PCR Qualitative	Not Applicable	Negative	Not Applicable	Yes