

## Certificate of Analysis

**PRODUCT:** AstaOmega –60 ct  
**PRODUCT DESCRIPTION:** BioMarine™ Concentrated Fish Oil MOST Quality with Astaxanthin, BioPerine®, Vitamin D and Natural Lemon Flavor  
**PRODUCT NO.:** MNSG-409  
**BATCH:** SB008048 (50991910)  
**LABEL LOT:** 080482 06/2016  
**DATE OF MANUFACTURE:** June, 2016  
**BEAT BEFORE/RETEST BY:** June, 2018


General	Manufacturing Specification	Results	Method
Pharmaceutical Form	Reddish brown capsule containing a golden oil	Conforms	Observation
Capsule size and shape	20 oblong	Conforms	Observation
Average Fill Weight	1096 mg +/- 5%	1099 mg	USP<2091>
Disintegration/Rupture Time	Max. 15 minutes	6 min.	USP<2040>
Acid Value <sup>1</sup>	Max. 3 mg KOH/g	0.2 mg KOH/g	Ph.Eur.2.5.1
Peroxide Value <sup>1</sup>	Max. 5 meq/kg	0.7 meq/kg	AOCS Cd 8-53
Peroxide Value Finished Capsules <sup>7</sup>	Max.10 meq/kg	1.6 meq/kg	USP <401>
Anisidine Value <sup>1</sup>	Max. 20 meq/kg	6	Ph.Eur.2.5.36
Lead <sup>1</sup>	Max. 0.1 mg/kg	Passed	External Laboratory*
Cadmium <sup>1</sup>	Max. 0.1 mg/kg	Passed	External Laboratory*
Arsenic (inorganic) <sup>1</sup>	Max. 0.1 mg/kg	Passed	External Laboratory*
Mercury <sup>1</sup>	Max. 0.1 mg/kg	Passed	External Laboratory*
PCBs (209 Cogeners) <sup>1</sup>	Max. 0.09 mg/kg	Passed	External Laboratory*
Sum of Dioxins & Furans (17) <sup>2</sup> -TEQ <sup>3</sup>	Max. 1.75 pg/g	Passed	External Laboratory*
Sum of Dioxins & Furans and Dioxin-like PCBs <sup>1</sup> -TEQ <sup>3</sup>	Max. 3 pg/g	Passed	External Laboratory*

Microbiological Standard	Manufacturing Specification	Results	Method
Total Plate Count	Max. 3,000 CFU/g	<100 CFU/g	USP<2021>
Total Mold & Yeast Count	Max. 300 CFU/g	<100 CFU/g	USP<2021>
<i>Salmonella</i>	Negative/10 g	Negative/10 g	USP<2022>
<i>E. coli</i>	Negative/10 g	Negative/10 g	USP<2022>
<i>Staphylococcus aureus</i>	Negative/10 g	Negative/10 g	USP<2022>

\*See attached Analytical Report(s).

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Ingredients	Manufacturing Specification (per 1 softgels)	Results	Method
Concentrated Omega-3 Fish Oil with Natural Lemon Flavor and Proprietary Antioxidant Blend <sup>4</sup>	1070 mg	1099 mg	Input
EPA (as EE) <sup>4</sup>	325 mg	353 mg	Ph.Eur/AOCS/GOED
DHA (as EE) <sup>4</sup>	250 mg	273 mg	Ph.Eur/AOCS/GOED
Other Omega-3 (as EE) <sup>4</sup>	Report	115 mg	Ph.Eur/AOCS/GOED
 Additional Omega-3 <sup>6</sup> (as EE) <sup>4</sup>	50 mg	166 mg	Ph.Eur/AOCS/GOED
Total Omega-3 Fatty Acids (as EE) <sup>4</sup>	625 mg	741 mg	Ph.Eur/AOCS/GOED
BioPerine®	2.5 mg	2.5 mg	Input <sup>5</sup>
Astaxanthin as AstaReal®	2 mg	2 mg	Input <sup>5</sup>
Vitamin D (as D <sub>3</sub> Cholecalciferol)	1250 IU	1250 IU	Input <sup>5</sup>
Flavor Coating	Lemon	Conforms	Input

<sup>1</sup>Analysis performed on fish oil before the addition of other ingredients.

<sup>2</sup>Toxicity Equivalents according to WHO.

<sup>3</sup>**Additives:** A proprietary natural antioxidant blend (Natural Tocopherols, Rosemary Extract, and Ascorbyl Palmitate) and a natural proprietary lemon flavor have been added.

<sup>4</sup>Measured as Ethyl Ester. Any third party test result must be based on a laboratory using the CRN/GOED or European Pharmacopeia method, non-modified. Analytical Results using AOAC, AOCS, USP or other methods, will not be recognized in a possible conflict of results.

<sup>5</sup>Results based on input, using values calculated from assay of the raw materials by the methods indicated.

<sup>6</sup>Additional Omega-3s include EPA and DHA above minimum specification as well as Other Omega-3s from line above.

<sup>7</sup>Peroxide value on delivery to customer.

Other Ingredients: gelatin, glycerin, purified water, annatto extract, and carob




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David Barnes, COO  
August 4, 2016