

Certificate of Analysis

Product: AstaOmega™
 Product Description: BioMarine® Fish Oil with BioPerine® and Astaxanthin
 Product Code: MNSG-409
 Packaged Lot No.: 2009065A
 Batch No.: 2009065 (0020980704)
 Date of Manufacture: September 23, 2020
 Best Before Date: 09/2022

Rev. 0

General	Specification	Results	Method
Description	Reddish brown capsule containing a reddish oil	Complies	STM001
Softgel Size and Shape ⁵	20 Oblong	Complies	STM001, STM004
Average Fill Weight	1171 mg +/- 5%	1166 mg	USP <2091>
Rupture Time	Max. 15 minutes	2 minutes	USP <2040>
Acid Value ¹	Max. 3 mg KOH/g	0.1 mg KOH/g	Ph.Eur. 2.5.1
Peroxide Value Finished Softgels	Max. 10 meq/kg	1.4 meq/kg	AOCS
Anisidine Value ¹	Max. 20	3.6	Ph.Eur. 2.5.36
Lead ¹	Less than 0.1 mg/kg	Passed	AAS/ICP-OES/MS
Cadmium ¹	Less than 0.1 mg/kg	Passed	AAS/ICP-OES/MS
Mercury ¹	Less than 0.1 mg/kg	Passed	AAS/ICP-OES/MS
Arsenic (inorganic) ¹	Less than 0.1 mg/kg	Passed	AAS/ICP-OES/MS
PCBs (209 Congeners) ¹	Max. 0.09 mg/kg	Passed	HRGC-HRMS (EN 1948 mod)
Sum of Dioxins & Furans (17) ¹ - TEQ ²	Max. 1.75 pg/g	Passed	HRGC-HRMS (EN 1948 mod)
Sum of Dioxins & Furans and Dioxin like PCBs ¹ - TEQ ²	Max. 3 pg/g	Passed	HRGC-HRMS (EN 1948 mod)

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

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Ingredients	Specification (per 1 softgel)	Results	Method
BioMarine® Omega-3 Fish Oil with Natural Lemon Flavor and Proprietary Antioxidant Blend	1144 mg +/- 5%	1139 mg	Formulation and In-process Controls
EPA (as EE) ³	Min. 325 mg	461 mg	GOED or equivalent
DHA (as EE) ³	Min. 250 mg	303 mg	GOED or equivalent
Other Omega-3s (as EE) ³	Report	170 mg	Calculation
Additional Omega-3 ⁴ (as EE) ³	Min. 50 mg	359 mg	Calculation
Total Omega-3s (as EE) ³	Min. 625 mg	934 mg	GOED or equivalent
Vitamin D (as cholecalciferol)	Min. 1250 IU	1580 IU	LC-MSMS
Astaxanthin	Min. 2 mg	3 mg	HPLC
BioPerine®	Min. 2.5 mg	2.7 mg	Formulation and In-process Controls
Flavor coating	LemonLock™	Complies	Formulation and In-process Controls

¹Analysis performed on input fish oil before encapsulation and addition of other ingredients.

²Toxicity Equivalents according to WHO

³Measured as Ethyl Ester. Marine will accept analytical results from the Eurofins laboratory in Des Moines, IA using the GOED method.

Analytical results using other methods or analytical results from other test laboratories will not be recognized in a possible conflict of results.

⁴Additional Omega-3s include EPA and DHA above minimum specification as well as Other Omega-3s from line above.

⁵Size 20 oblong tooling used. This size encompasses range of 18.5 to 22 minims fill volume and dimensions.

Ingredients: Fish oil (anchovy, sardine, mackerel), EE; gelatin, bovine; glycerin; purified water; AstaReal® L10; lemon flavor; CapColor annatto; carob extract; BioPerine®; vitamin D3; proprietary antioxidant blend (natural mixed tocopherols, rosemary extract, ascorbyl palmitate)

Allergen: Contains fish oil and soybean. Highly refined fish oil labeling exempted according to c,d. Labeling required according to a,b. Mixed tocopherols (E306). Labeling exempted according to b,c,d. Labeling required according to a.

- a) Australian New Zealand Food Standards Code (Standard 1.2.3)
- b) Directive 2000/12/EC as amended, list according to Annex IIIa
- c) US Food Allergen Labeling and Consumer Protection Act (FALCPA)
- d) Health Canada 2011 Amendments of Food Allergen Labeling Regulations

Reviewed by/Date:

Pandey 08/31/21

Quality Released by/Date:

Jos 08/31/21