

*Certificate of Analysis*

Product: BioMarine®1140—FSMP  
 (Food for Special Medical Purpose)  
 Product Description: Shark Liver Oil, Minimally Processed – 1140 mg (blister cards)—derived from deep water sharks harvested in the Tasman Sea and waters surrounding New Zealand  
 Product No.: MNSG-156  
 Batch No.: 1712043  
 Date of Manufacture: Jan., 2018  
 Best Before/Retest by: Jan, 2021


General	Manufacturing Specification	Results	Method
Description	Clear soft gelatin capsules containing a light golden oil	Conforms	Observation
Softgel Size and Shape	21 Oblong	Conforms	Observation
Average Fill Weight	1140 mg +/- 5%	1130 mg	USP <2091> or equivalent
Rupture Time (on delivery)	Max. 15 minutes	<10 min.	USP <2040> or equivalent
Acid Value <sup>1</sup>	Max. 3 mg KOH/g	<0.2 mg KOH/g	Ph.Eur. or equivalent
Peroxide Value <sup>1</sup>	Max. 5 meq/kg	1.7 meq/kg	Ph.Eur./AOAC
Anisidine Value <sup>1</sup>	Max. 20	9	Ph.Eur./IUPAC.D.26
Lead <sup>1</sup>	Less than 0.1 mg/kg	Conforms	AAS/ICP-OES/MS
Cadmium <sup>1</sup>	Less than 0.1 mg/kg	Conforms	AAS/ICP-OES/MS
Mercury <sup>1</sup>	Less than 0.1 mg/kg	Conforms	AAS/ICP-OES/MS
Arsenic <sup>1</sup>	Less than 2 mg/kg	Conforms	AAS/ICP-OES/MS

Microbiological Standard	Manufacturing Specification	Results	Method
Total Plate Count	Max. 3,000 CFU/g	<10 CFU/g	Ph. Eur/USP/AOAC
Total Mold & Yeast Count	Max. 300 CFU/g	<10 CFU/g	Ph. Eur/USP/AOAC
<i>Escherichia coli</i>	Negative/10g	Negative/10g	Ph. Eur/USP/AOAC
<i>Salmonella</i>	Negative/10g	Negative/10g	Ph. Eur/USP/AOAC
<i>Staphylococcus aureus</i>	Negative/10g	Negative/10g	Ph. Eur/USP/AOAC
<i>Listeria monocytogenes</i>	Negative/25g	Negative/25g	Ph. Eur/USP/AOAC

Ingredients	Specification (per 1 softgel)	Results	Method
Shark Liver Oil	1140 mg +/- 5%	Conforms	Formulation and In Process Controls
Alkylglycerols <sup>1</sup>	240 mg	260 mg	Calculation
DAGE <sup>1</sup>	610 mg	661 mg	Calculation
Squalene <sup>1</sup>	240 mg	258 mg	Calculation

<sup>1</sup>Result based on testing of shark liver oil prior to encapsulation.

Fill ingredients: Shark liver oil. Shell ingredients: Gelatin, glycerin, purified water



Caroline Lease, Quality  
 Feb. 14, 2018