

**IDENTIFICATION**

Product name: QRILL™ AstaOmega Oil (13/4)  
 Product number: 43020041  
 Batch number: A101799  
 Manufacturing date: 26/MAY/2021  
 Retest date: 26/MAY/2023  
 Composition: Dark red colored oil extracted from Antarctic Krill, Euphausia superba.  
 The product contains Omega-3 marine fatty acids and the natural antioxidant Astaxanthin .  
 Country of origin: Manufactured at Aker BioMarine Manufacturing LLC in Houston, Texas, US

**ANALYTICAL SPECIFICATION**

PARAMETER	METHOD	ACTUAL VALUE	LIMIT	UNIT
Appearance	Visual	Dark, red oil	Dark, red oil	
<b>LIPID COMPOSITION</b>				
Total phospholipids	31P-NMR	3	4 +/- 3	g/100 g
Free fatty acids	AOCS Cd 3d-63	2	Report value	g/100 g
<b>FATTY ACID PROFILE</b>				
Total omega-3 fatty acids	(1) ANA-2014-07	18	13 +/- 3	g/100 g
- C 20:5 n-3 (EPA)	(1) ANA-2014-07	5	6 +/- 3	g/100 g
- C 22:6 n-3 (DHA)	(1) ANA-2014-07	3	2 +/- 1	g/100 g
<b>STABILITY INDEX</b>				
Peroxide value	AOCS Cd 8b-90	5	≤ 10	mEq peroxide/kg
<b>ANTIOXIDANTS</b>				
Astaxanthin	FCC / USP-NF (UV)	797	1100 +/- 350	mg/kg
<b>WATER AND ETHANOL</b>				
Water activity at 25°C	Moisture probe	0.2	≤ 0.7	
Water	Karl Fischer	< 1	≤ 2	%
Ethanol content	Gas Chromatography	0.4	≤ 2.0	g/100 g
<b>MICROBIOLOGY</b>				
Total plate count	AOAC 990.12	< 10	< 1000	cfu/g
Mould and yeast	FDA-BAM, 7th ed.	< 10	< 100	cfu/g
Coliform	AOAC 991.14	< 10	< 10	cfu/g
E. coli	USP-NF, 62	Negative	Negative	In 10 g sample
Salmonella	AOAC-R1100201 (PCR)	Negative	Negative	In 25 g sample

1 Based on USP FCC8 Appendix VII (2013). Values expressed as Free Fatty Acids (FFA)

**APPLICATION:**

Feed for use animal nutrition. Not for human consumption.

**PACKAGING:**

Bulk product in sealed containers, with inert headspace.

**HANDLING AND STORAGE:**

The product is best kept at temperatures <25°C during storage in its original packaging container.

**RETEST DATE:**

2 years from date of manufacturing when stored in original unopened and sealed containers at recommended storage conditions.

**COMMENTS:**

Contains Crustacean Shellfish. Material is of animal origin – Antarctic krill (*Euphausia superba*).

Date: 10/JUN/2021

Approved electronically by:

*Norman Lee*

QA Manager

