

Revision:	00	<b>Alpha Laboratories (NZ) Limited</b>		
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RAW MATERIAL NAME:	Deer Placenta Powder			

Manufacturer's Batch No.:	JRDP04344	SITE BATCH No.:	B05031
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	TEST	SPECIFICATION	RESULT
1	Appearance	Free flowing, light brown to red brown powder	Conforms
2	Identification	Complies with the appearance and odour of the reference sample	Conforms
3	Loss on drying	≤ 8.0%	4.2%
4	Aerobic Plate Count	≤ 10 000 cfu g <sup>-1</sup>	< 10 cfu g <sup>-1</sup>
5	Yeast and Mould	≤ 200 cfu g <sup>-1</sup>	< 10 cfu g <sup>-1</sup>
6	<i>Escherichia coli</i>	Not Detected g <sup>-1</sup>	Not Detected g <sup>-1</sup>
7	Salmonella	Not Detected 10 g <sup>-1</sup>	Not Detected 10 g <sup>-1</sup>

PREPARED BY:  DATE: 18 Oct 10  
 Technical & Regulatory Affairs Officer

APPROVED BY:  DATE: 18 Oct 10  
 Technical & Regulatory Affairs Team Leader

TRA2010-10-059 Deer Placenta Powder 5718

Revision:	00	Alpha Laboratories (NZ) Limited	
Page:	1 of 1	<b>RAW MATERIAL CERTIFICATE OF ANALYSIS</b>	
RAW MATERIAL NAME:	Grape Seed Oil		

Manufacturer's Batch No.:	10807351	SITE BATCH No.:	A11045
Laboratory No. 11/0077	Manufacture Date Jun 2010	EXPIRY DATE Jun 2012	

	TEST	SPECIFICATION	RESULT	
1	Appearance	Clear, yellow greenish liquid	Conforms	
2	Identification	1.467 to 1.477 at 20°C	Conforms	
	A. Refractive Index			
2	B. Composition of Fatty Acids	It complies with the test for composition of fatty acids	Conforms	
3	Acid Value	≤ 4.5 mg KOH g <sup>-1</sup>	0.15 mg KOH g <sup>-1</sup>	
4	Peroxide Value	≤ 5 meq O <sub>2</sub> kg <sup>-1</sup>	3.70 meq O <sub>2</sub> kg <sup>-1</sup>	
5	Moisture and Volatile Matter	≤ 0.1%	0.03%	
6	Composition of Fatty acids	Lauric Acid (C12:0)	≤ 0.5%	0.1%
		Myristic Acid (C14:0)	≤ 0.3%	0.1%
		Palmitic acid (C16:0)	5.5% to 11.0%	6.8%
		Palmitoleic acid (C16:1)	≤ 1.2%	0.2%
		Stearic acid (C18:0)	3.0% to 6.5%	3.9%
		Oleic acid (C18:1)	12.0% to 28.0%	26.7%
		Linoleic acid (C18:2)	58.0 to 78.0%	59.9%
		Linolenic Acid (C18:3)	≤ 1.0%	0.2%
	≥ C20:0	< 2.2%	1.0%	
7	Specific Gravity	0.920 to 0.926 at 20°C	0.922	
8	Saponification Value*	188 to 194 mg KOH g <sup>-1</sup>	190 mg KOH g <sup>-1</sup>	
9	Unsaponifiable Matter*	≤ 2.0 %	0.56%	

\* Results based on supplier's Certificate of Analysis or rotational testing

PREPARED BY:  DATE: 03 Feb 11  
Technical & Regulatory Affairs Officer

APPROVED BY:  DATE: 04 Feb 11  
Technical & Regulatory Affairs Team Leader

TRA2011-02-044 RM CoA Grape Seed oil \_2682

Revision:	00	<b>Alpha Laboratories (NZ) Limited</b> <b>RAW MATERIAL CERTIFICATE OF ANALYSIS</b>	
Page:	1 of 1		
RAW MATERIAL NAME:	Flax Seed Oil		

Manufacturer's Batch No.:	100301	SITE BATCH No.:	D10032
Laboratory No. 10/1383	Manufacture Date Mar 2010	EXPIRY DATE Mar 2012	

	TEST	SPECIFICATION	RESULT
1	Appearance	Clear, yellow or brownish-yellow liquid	Conforms
2	Identification	It complies with the test for iodine value	Conforms
	A. Iodine Value		
	B. Composition of Fatty Acids	It complies with the test for composition of fatty acids	Conforms
3	Acid Value	$\leq 4.5 \text{ mg KOH g}^{-1}$	$0.5 \text{ mg KOH g}^{-1}$
4	Iodine Value	160 to 200	178.92
5	Peroxide Value	$\leq 15 \text{ meq O}_2 \text{ kg}^{-1}$	$3.0 \text{ meq O}_2 \text{ kg}^{-1}$
6	Composition of Fatty acids	Fatty acids with a chain less than C <sub>16</sub>	$\leq 1.0\%$ 0.1%
		Palmitic acid C <sub>16:0</sub>	3.0% to 8.0% 5.7%
		Palmitoleic acid C <sub>16:1</sub>	$\leq 1.0\%$ 0.1%
		Stearic acid C <sub>18:0</sub>	2.0 % to 8.0% 3.3%
		Oleic acid C <sub>18:1</sub>	20.0% to 30.0% 19.3%
		Linoleic acid C <sub>18:2</sub>	12.0% to 18.0% 18.1%
		Linolenic acid C <sub>18:3</sub>	36.0% to 65.0% 52.0%
	Arachidic acid C <sub>20:0</sub>	$\leq 1.0\%$ 0.2%	
7	Saponification Value	188 to 195 mg KOH g <sup>-1</sup>	192.9 mg KOH g <sup>-1</sup>
8	Unsaponifiable Matter	$\leq 1.5 \%$	1.3%
9	Cadmium	$\leq 0.5 \text{ ppm}$	< 0.002 ppm
10	Water*	$\leq 0.1 \%$	0.00%

\* Results based on supplier's Certificate of Analysis or rotational testing

PREPARED BY:  DATE: 03 Feb 11  
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TRA2011-02-045 RM CoA\_Flax Seed Oil\_7396

Revision:	01	<b>Alpha Laboratories (NZ) Limited</b>	
Page:	1 of 1	<b>RAW MATERIAL CERTIFICATE OF ANALYSIS</b>	
RAW MATERIAL NAME:	Marine Collagen		

Manufacturer's Batch No.:	0908131	SITE BATCH No.:	D10027
Laboratory No. 10/1208	Manufacture Date Aug 2009	EXPIRY DATE Aug 2012	


	TEST	SPECIFICATION	RESULT
1	Appearance	White powder	Conforms
2	Identification	It complies with assay specification	Conforms
3	Assay – Hydroxyproline	≥ 5%	11.1%
4	Loss on Drying	≤ 5.0%	6.0%
5	Aerobic Plate Count	≤ 10 000 cfu g <sup>-1</sup>	< 10 cfu g <sup>-1</sup>
6	Yeast and Mould	≤ 100 cfu g <sup>-1</sup>	< 10 cfu g <sup>-1</sup>
7	<i>Escherichia coli</i>	Not Detected g <sup>-1</sup>	Not Detected
8	Salmonella	Not Detected 10 g <sup>-1</sup>	Not Detected
9	Bile-tolerant gram negative bacteria	≤ 100 MPN g <sup>-1</sup>	< 10 MPN g <sup>-1</sup>
10	Residue on Ignition*	≤ 2.0%	0.38%
11	pH*	5.0 to 6.0	5.57
12	Heavy Metals*	≤ 20 ppm	< 20 ppm
13	Arsenic*	≤ 10 ppm	≤ 10 ppm
14	Mercury*	≤ 5 ppm	≤ 5 ppm

\* Results based on supplier's Certificate of Analysis or rotational testing

**Additional Information from supplier**

Dioxins**	Less than 4.0 pg TEQ/g
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\*\* Dioxins are not routinely tested by Alpha Laboratories for raw material release.

PREPARED BY:  DATE: 27 Oct 10  
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REVIEWED BY:  DATE: 27 Oct 10  
Technical & Regulatory Affairs Team Leader

TRA2010-10-104\_RM CoA\_Marine Collagen 4590\_D10027 v 01