

SANOS GmbH
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DIN EN ISO/IEC 17025:2005

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Berlin, 16 September 2019
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TEST REPORT

Sample number:	ifp19-35334-001
Sample description:	Bio Alfalfa Pulver
Date of receipt:	28 August 2019
Client:	SANOS GmbH
Sampling by:	Client
Condition of received samples:	Uncooled and without abnormalities
Packaging:	Original packaging
BBD:	31.12.2022
Batch:	62771
Nominal quantity:	each 150 g
Number of packages:	4
Begin/end of analysis:	28 August 2019 / 16 September 2019

Analysis and results:
see next page

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Chemical-analytical parameters:

Energy	calculated				KJ/100 g :	1170
Energy	calculated				kcal/100 g :	280
Dry matter	ASU L 06.00-3 : 2014-08 (a)				g/100 g :	94.8
Water	ASU L 06.00-3 : 2014-08 (a)				g/100 g :	5.2
Ash	PV-202-ASH : 2018-02 (a)				g/100 g :	9.5
Total protein	ASU L 06.00-7 : 2014-08 (a)				g/100 g :	25.4
The conversion factor from nitrogen to total protein is 6.25.						
Fibre	ASU L 00.00-18 : 1997-01 Ber. 2002-12 (a)				g/100 g :	35.5
Total fat	ASU L 06.00-6 : 2014-08 (a)				g/100 g :	2.0
- of which saturated fatty acid	ISO 5508/5509 (GC-FID) : 1990 (a)				g/100 g :	0.32

Sugar / Carbohydrates:

Glucose	EnzymeFast E1002 : 2013-02 (a)				g/100 g :	0.2
Fructose	EnzymeFast E1002 : 2013-02 (a)				g/100 g :	0.3
Lactose	EnzymeFast E1001 : 2013-02 (a)				g/100 g :	< 0.1
Galactose	EnzymeFast E1001 : 2013-02 (a)				g/100 g :	< 0.1
Maltose	EnzymeFast E1006 : 2013-02 (a)				g/100 g :	< 0.1
Sucrose	EnzymeFast E1002 : 2013-02 (a)				g/100 g :	1.0
Total sugar	calculated				g/100 g :	1.5
Carbohydrate	calculated				g/100 g :	22.4

Elements / Heavy metals / Minerals:

Sodium	in Anl. ASU L 07.00-56 : 2000-07 (a)				mg/kg :	115
Salt	calculated				g/100 g :	0.03
Sodium content is calculated to salt by using the formula: salt = sodium x 2.5						
Potassium	PV-347 ICP-MS : 2016-10 (a)				mg/kg :	25062
Calcium	PV-347 ICP-MS : 2016-10 (a)				mg/kg :	15284
Magnesia	PV-347 ICP-MS : 2016-10 (a)				mg/kg :	1712
Manganese	ASU L 00.00-135 (ICP-MS) : 2011-01 (a)				mg/kg :	34.2
Selenium	ASU L 00.00-135 (ICP-MS) : 2011-01 (a)				mg/kg :	0.15
Limit of quantification 0.02 mg/kg						
Phosphorus	ASU L 00.00-135 (ICP-MS) : 2011-01 (a)				mg/kg :	2888
Iodine	DIN EN 15111 (ICP-MS) : 2007-06 (a)				mg/kg :	0.06
Iron	ASU L 00.00-135 (ICP-MS) : 2011-01 (a)				mg/kg :	79.1
Copper	ASU L 00.00-135 (ICP-MS) : 2011-01 (a)				mg/kg :	8.2
Zinc	ASU L 00.00-135 (ICP-MS) : 2011-01 (a)				mg/kg :	21.5

(a) accredited; (b) validated, not accredited method; (f) outsourced, not ifp accredited

(B) location Berlin; (L) location Leipzig; (O) location Ohrdruf; (A) location Aachen

ifp Privates Institut für Produktqualität GmbH • Geschäftsführung / Management: Dr. Wolfgang Weber, Carolin Poweleit

Bankverbindung: IBAN DE21 1009 0000 7270 1740 05, BIC BEVODE33 • Handelsregister: HRB 95422, Amtsgericht Charlottenburg • USt-IdNr. DE814222515

Bank Account: IBAN DE21 1009 0000 7270 1740 05, BIC BEVODE33 • Commercial Registry: HRB 95422, Charlottenburg District Court • VAT ID No. DE814222515

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Vitamins / Precursor substances:

Vitamin E (DL- α -Tocopherol)	DIN EN 12822 : 2014-08 (a)	mg/100 g :	4.5
Vitamin E (DL- β -Tocopherol)	DIN EN 12822 : 2014-08 (a)	mg/100 g :	< 0.2
Vitamin E (DL- γ -Tocopherol)	DIN EN 12822 : 2014-08 (a)	mg/100 g :	< 0.2
Vitamin E (DL- δ -Tocopherol)	DIN EN 12822 : 2014-08 (a)	mg/100 g :	< 0.2
Vitamin E, active (<i>natural source</i>)	DIN EN 12822 : 2014-08 (a)	mg/100 g :	4.5
Vitamin E, active (<i>artificial source</i>)	DIN EN 12822 : 2014-08 (a)	mg/100 g :	3.3
Vitamin D ₂ (Ergocalciferol)	DIN EN 12821 : 2009-08 (a)	μ g/100 g :	< 0.3
Vitamin D ₃ (Cholecalciferol)	DIN EN 12821 : 2009-08 (a)	μ g/100 g :	< 0.3
Vitamin K ₁ (Phylloquinone)	DIN EN 14148 : 2003-10 (a)	μ g/100 g :	7878
Vitamin K ₂ (Menaquinone)	DIN EN 14148 : 2003-10 (a)	μ g/100 g :	< 2.0
Vitamin A (Retinol)	DIN EN 12823-1 : 2014-08 (a)	μ g/100 g :	< 4.0
Vitamin A, active	DIN EN 12823-1 : 2014-08 (a)	μ g/100 g :	1846
Vitamin A (β -Carotene)	DIN EN 12823-2 : 2007-07 (a)	μ g/100 g :	11053
Vitamin C (L-Ascorbic acid)	DIN EN 14130 : 2003 (a)	mg/100 g :	30.5
Vitamin B ₁ (Thiamine)	VitaFast® ifp P1006 : 2011-06 (a)	mg/100 g :	0.51
Vitamin B ₂ (Riboflavin)	VitaFast® ifp P1007 AOAC Certificate No.100902 : 2011-06 (a)	mg/100 g :	2.5
Vitamin B ₆ (Pyridoxine)	VitaFast® ifp P1008 : 2011-06 (a)	mg/100 g :	0.49
Niacin (Nicotinic acid)	VitaFast® ifp P1004 : 2011-06 (a)	mg/100 g :	4.7
Pantothenic acid	VitaFast® ifp AOAC Certificate No.100904 : 2011-06 (a)	mg/100 g :	6.0
Folic acid	VitaFast® ifp AOAC Certificate No.100903 : 2011-06 (a)	μ g/100 g :	1333
Biotin	VitaFast® ifp AOAC Certificate No.101001 : 2011-06 (a)	μ g/100 g :	57.3
Vitamin B ₁₂ (Cyanocobalamin)	VitaFast® ifp AOAC Certificate No.101002 : 2011-06 (a)	μ g/100 g :	0.82

Allergens / Intolerances:

Gluten PV-22-ELISA-PF-25 : 2018-01 (a) mg/kg : not detected
ELISAFast® Gluten (Sandwich ELISA based on R5 Antibodies from Prof. Mendez) Limit of detection / Limit of quantification 3 mg/kg

This document was proved by Florian Jünemann, issued electronically and is therefore valid without signature.

Florian Jünemann
Food Chemist
Account Management