

Recherche von Merle zu dem Resihi Pulver - auf Grund der folgenden Recherche werden die Nährwerte aus der Analyse von Agrolab genommen. (im Folgenden dieses Dokumentes folgt die Spezifikation von Smart Organics und die Analyse von Agrolab. H.W 13.07.2022)

anbei wie besprochen die Recherche zum Reishi Pulver mit Quellen:

Ich habe erstmal in allen Datenbanken nachgeguckt, wie dort die Nährwerte angegeben sind, aber das variiert sehr sehr stark. Deshalb habe ich mir mehrere Studien, die sich mit der Zusammensetzung des Pilzes auseinandergesetzt haben und habe folgendes herausgefunden:

- Der Gehalt der Makronährstoffe schwankt und ist nicht wirklich klar definiert, es werden in den Studien häufig Bereiche angegeben.
- Viele Studien und auch Internetquellen beziehen ihre Nährwerte nicht aus der EU —> in der EU werden Ballaststoffe nicht in den KH angegeben, in vielen anderen Ländern zählen die Ballaststoffe aber zu den KH
- Der Gesamt KH Gehalt (inkl. Ballaststoffe) liegt meistens so zwischen 82 und 88 g
- Es wird geschrieben, dass die KH hauptsächlich Polysaccharide (z.B. Glucane) sind, welche ja zu den Ballaststoffen gehören
- Der Proteingehalt liegt meistens zwischen 7,2 und 13,3%
- Und der Fettgehalt ist in den meisten Studien sehr sehr gering

Die Spezifikation vom 18.06.2021 macht für mich auch keinen Sinn, da der Kaloriengehalt zu hoch ist und die Ballaststoffe bei 0g liegen sollen.

Aber auch die Spezifikation vom 27.03.2021 erscheint mir nicht richtig, da dort gar keine KH angegeben sind und der Pilz laut den Studien schon KH enthält. Es liegt ja die Nährwertanalyse vom Agrolab vor und da habe ich die Nährwerte auch abgeglichen und die erscheinen für mich sinnvoll. Der Proteingehalt und der Fettgehalt geht mit den Studienberichten einher und es ist auch eine geringe Menge an KH enthalten.

Wichtigste Quellen:

- Polysaccharides in mushrooms (<https://sci-hub.hkvisa.net/10.1080/14786419.2018.1466129>)
- Composition of Reishi (G. Lucidum in Table 1) <http://agris.upm.edu.my:8080/dspace/bitstream/0/12818/1/Nutritional%20composition%20and%20antioxidant%20capacity%20of%20several%20edible%20mushrooms%20grown%20in%20the%20Southern%20Vietnam.pdf>
- Polysaccharides in Reishi (Linghzi gleich Pilz, wird in China so genannt) <https://www.worldscientific.com/doi/epdf/10.1142/S0192415X07005065>
- Composition Table 1 <https://sci-hub.hkvisa.net/10.1016/j.fct.2017.07.051>

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1. Информация/ General information:

Продукт/ Product name: био Рейши на прах/ organic Reishi powder
Научно наименование/ Scientific name: <i>Ganoderma lucidum</i>

2. Произход/ Origin:

Страна на произход/ Country of origin:	Страна на произход на земеделието/ Country of origin of raw material
Китай/ China	извън ЕС/ non-EU

3. Описание на продукта/ Product description:


Гъбата рейши се използва в китайската народна медицина, наричат я “дървото на живота” и “ растение на дълголетие”./The reishi mushroom is used in Chinese folk medicine, called "the tree of life" and "a plant of longevity"

4. Органолептични характеристики/ Sensory description:

Цвят/Color:	Светло жълт/ Light yellow
Вкус/ Taste:	Характерен, горчив/ Characteristic, bitter
Текстура/ Consistency:	Прах/ Powder

5. Физико-химични показатели/ Physical/ Chemical parameters:

Водно съдържание/ Moisture: <5%
Пепелност/ Ash: max. 1.8%
Размер/ Mesh: 300 mesh

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6. Микробиологични показатели/ Microbiological parameters:

<i>Параметър/ Parameter:</i>	<i>Лимит/ Limit:</i>
Coagulase positive staphylococci (cfu/g)	<100
Sulphite reducing clostridia (cfu/g)	<1000
Bacillus (cfu/g)	Отсъствие/ Absence
E. coli (cfu/g)	<1000
Enterobacteriaceae (cfu/g)	<1000
Salmonella (Detected/ 25g)	Отсъствие/ Absence

7. Състав/ Ingredients

Количество и опаковка/ Content and package:

100% био гъба Рейши/ 100% organic Reishi mushroom
100g LDPE

8. Средни хранителни стойности за 100г/ Average nutritional facts per 100g:*

<i>Енергийна стойност/ Energy:</i>	382 kcal/ 1620 kJ
<i>Мазнини/ Fats:</i>	2,3g
<i>от които наситени/ of which saturated:</i>	0g
<i>Въглехидрати/ Carbohydrates:</i>	82g
<i>от които ахару/ of which sugars:</i>	0g
<i>Белтъци/ Proteins:</i>	8,8g
<i>Влакнини/ Fibre:</i>	0g
<i>Сол/ Salt:</i>	0g


*Възможни са характерни отклонения в посочените хранителни стойности/ Values may vary depending on natural variations

9. Употреба/ Usage:

За директна консумация: 1-1,5г на ден/ For direct consumption: 1-1,5g. per day

10. Срок на годност/ Shelf life:

18 месеца/ months


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11. Съхранение/ Storage:

Съхранявайте на сухо (65% RH) и прохладно място (<25°C)/Store in a cool (<25°C) and dry (65% RH) place

12. Нормативна база и стандарти/ Legislation and standards:

<i>ГМО/GMO:</i>	В съответствие с Регламент 1829/2003 и Регламент 1830/2003 / In accordance to the Regulation 1829/2003 and Regulation 1830/2003. Продуктът не съдържа и не е произведен от ГМО./ The Product does not contain and is not produced with GMO material.
<i>Йонизиращо лъчение/ Ionizing radiation:</i>	Продуктът не е третиран с йонизиращо лъчение./ The product is not treated with ionizing radiation.
<i>Пестициди/ Pesticides:</i>	В съответствие с Регламент 834/ 2007 и Регламент 889/2008./ In accordance to the Regulation 834/ 2007 and Regulation 889/2008. В съответствие с изискванията за остатъчни вещества от пестициди от Немската Асоциация за биологично производство и търговия “BNN-Herstellung und Handel”. / Corresponds to the requirements for Pesticide Residue Levels of the German Association for Organic Production and Trade „BNN-Herstellung und Handel”.
<i>Тежки метали/ Heavy metals</i>	В съответствие с Регламент 1881/2006 и Регламент 165/2010./ In accordance to the Regulation 1881/2006 and Regulation 165/2010. И други действащи изменения/ and other actual endorsements.
<i>Био/Organic</i>	В съответствие с Регламент 834/2007 и Регламент 889/2008./ In accordance to the Regulation 834/2007 and Regulation 889/2008.

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13. Алергени според Регламент: / Allergens according to Regulation: 1169/2011

Съставка/ Components	Присъства като съставка/Contained as ingredient		Кръстосано замърсяване/Possible crosscontamination	
	Да/ Yes	Не/ No	Да/ Yes	Не/ No
Глутен съдържащи/ Cereals containing gluten				
Пшеница/Wheat		X		X
Ръж/Rye		X		X
Ечемик/Barley		X		X
Овес/Oat		X		X
Спелта/Spelt		X		X
Камут/Kamut		X		X
Хибриди/Hybides		X		X
Ракообразни и продукти от тях/Crustaceans and crustacean products		X		X
Яйца и продукти от тях/Eggs and egg products		X		X
Риба и рибни продукти/ Fish and fish products		X		X
Фъстъци и продукти от тях/ Peanuts and peanut products		X		X
Соя и соеви продукти/ Soybeans and soya products		X		X
Мляко и млечни продукти/Milk and dairy products		X		X
Ядки/ Nuts				
Бадеми/ Almonds		X		X
Лешници/ Hazelnuts		X		X
Орехи/ Walnuts		X		X
Кашу/ Cashew		X		X
Пеканови ядки/ Pecan nuts		X		X
Бразилски орех/ Brazil nuts		X		X
Шамфъстък/ Pistachios		X		X
Макадамия/ Macadamia		X		X
Целина и продукти от нея/ Celery and celery products		X		X
Синап и продукти от него/Mustard and mustard products		X		X
Сусамово семе и продукти от него/ Sesame and sesame products		X		X

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Съставка/ Components	Присъства като съставка/Contained as ingredient		Кръстосано замърсяване/Possible crosscontamination	
	Да/Yes	Не/ No	Да/Yes	Не/ No
Серен диоксид и сулфити с концентрация над 10мг/кг или 10 мг/л под формата на общ SO2 / Sulphur dioxide and sulphites >10 mg/kg or >10mg/litre expressed as SO2		X		X
Лупина и продукти от нея/ Lupin and lupin products		X		X
Мекотели и продукти от тях/ Molluscs and mollusc products		X		X

Допълнителни алергени/ Additional allergenes	Присъства като съставка/Contained as ingredient		Кръстосано замърсяване/Possible crosscontamination	
	Да/Yes	Не/No	Да/Yes	Не/No
Глутен/ Gluten		X		X
Лактоза/ Lactose		X		X
Какао/ Cocoa		X		X
Глутамат/ Glutamate E620 - E625		X		X
Пилешко месо/ Chicken meat		X		X
Кориандър/ Coriander		X		X
Царевица/ Corn, maize		X		X
Бобови, варива/ Legumes, pulses		X		X
Говеждо месо/ Beef		X		X
Свинско месо/ Pork		X		X
Моркови/ Carrot		X		X

Одобрено/ Approved by:

Отдел Качество/ Quality department

quality@smartorganic.euwww.smartorganic.eu

AGROLAB LUFA Dr.-Hell-Str. 6, 24107 Kiel

BioFungi GmbH
Herr Daniel Hawlik
Gottlieb-Daimler-Str. 8
86462 Langweid

Date 15.01.2020
Customer no. 10084004

REPORT 2670008 - 594670

Order **2670008**
Sample no. **594670**
Sample acceptance **06.01.2020**
Sample taker **Client (Daniel Hawlik)**
Sample code **sample 1:**
Bio Reishi Pulver
Origin: China
Description of the sample **B13019010A/VÖ5176A**
Packaging **1 x plastic bag, 300 g**

Unit Result Declaration Substance Method

Nutrition values/ingredients

Energy	kJ/100g	888		OM	Calculation acc. to regulation (EU) No 1169/2011
Energy	kcal/100g	219		OM	Calculation acc. to regulation (EU) No 1169/2011
Protein (N x 6.25)	g/100g	7,13		OM	§64 LFGB L 17.00-15 : 2013-08 (mod.)
Carbohydrates	g/100g	5,7		OM	Calculation by difference method
<i>Fructose</i>	g/100g	<0,100		OM	DIN 10758 : 1997-05 (mod.)
<i>Glucose</i>	g/100g	<0,100		OM	DIN 10758 : 1997-05 (mod.)
<i>Lactose</i>	g/100g	<0,100		OM	DIN 10758 : 1997-05 (mod.)
<i>Maltose *</i>	g/100g	<0,050		OM	QMP_504_KI_52_159 : 2019-10 (LC-MSMS)
<i>Sucrose</i>	g/100g	<0,100		OM	DIN 10758 : 1997-05 (mod.)
Sugar	g/100g	<0,50^{x)}		OM	calculated
Total fat	g/100g	0,75		OM	§64 LFGB L 17.00-4 : 1982-05 (mod.)
thereof saturated fatty acids	g/100g	0,3		OM	calculated
thereof mono unsaturated fatty acids	g/100g	0,4		OM	calculated
thereof poly unsaturated fatty acids	g/100g	0,12		OM	calculated
thereof trans fatty acids	g/100g	0,0		OM	calculated
Total dietary fibres	g/100g	80,3		OM	§64 LFGB L 00.00-18 : 1997-01
Crude ash	g/100g	0,98		OM	§64 LFGB L 17.00-3 : 2002-12 (mod.)
Water	g/100g	5,17		OM	§64 LFGB L 17.00-1 : 2002-12 (mod.)

Minerals

Sodium	g/100g	<0,01		OM	DIN EN 16943 : 2017-10
Salt equivalent (calculated sodium * factor 2,5)	g/100g	<0,03^{x)}		OM	Calculation from sodium content (Na)

Fatty acid distribution expressed in % of total fatty acids

<i>Octanoic acid C 8:0</i>	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
<i>Capric acid C 10:0</i>	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
<i>Lauric acid C 12:0</i>	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)

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	Unit	Result	Declaration	Substance	Method
Myristic acid C 14:0	%	0,3		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Myristoleic acid C 14:1	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Pentadecanoic acid C 15:0	%	0,9		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Palmitic acid C 16:0	%	14,4		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Hexadecanoic acid trans-isomers C 16:1 trans	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Palmitoleic acid C 16:1	%	0,4		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Hexadecadienoic acid C16:2 (n-4)	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Hexadecatrienic acid C16:3 omega-3	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Margaric acid C 17:0	%	0,5		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Heptadecenoic acid C 17:1	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Stearic acid C 18:0	%	5,5		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Octadecenoic acid trans-isomers C 18:1 trans	%	0,2		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Oleic acid C 18:1	%	44,3		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Petroselinic acid C 18:1	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
cis-vaccenic acid C 18:1	%	1,3		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Octadecadienoic acid trans-isomers C 18:2 trans	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Linolic acid C 18:2 omega-6	%	15,5		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Octadecatetrienic acid, trans-isomers C 18:3 trans	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
alpha-linolenic acid C 18:3 omega-3	%	0,2		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
gamma-linolenic acid C 18:3 omega-6	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Stearidonic acid C 18:4 omega-3	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Arachic acid C 20:0	%	0,8		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Eicosenoic acid C 20:1	%	0,4		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Eicosadienic acid C 20:2 omega-6	%	0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Eicosatrienoic acid C 20:3 omega-3	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Eicosatrienoic acid C 20:3 omega-6	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Arachidonic acid C 20:4 omega-6	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Eicosapentaenic acid C 20:5 omega-3	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Eicosatetraenic acid C 20:4 omega-3	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Henicosanoic acid C 21:0	%	0,7		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Behenic acid C 22:0	%	3,2		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Docosenoic acid trans-isomers C 22:1 trans	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)

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	Unit	Result	Declaration	Substance	Method
Docosenoic acid C 22:1	%	0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Docosadienic acid C 22:2 omega-6	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Docosatrienic acid C 22:3	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Docosatetraenic acid C 22:4 omega-6	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Docosapentaenic acid C 22:5 omega-3	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Docosapentaenic acid C22:5 omega-6	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Docosahexaenic acid C 22:6 omega-3	%	<0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Tricosanoic acid C 23:0	%	5,7		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Lignoceric acid C 24:0	%	5,2		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Nervonic acid C 24:1	%	0,1		OM	DGF C-VI 11a : 2016 (mod.) + DGF C-VI 10a : 2016 (mod.)
Sum saturated fatty acids	%	37,2 ^{x)}		OM	calculated
Sum monounsaturated fatty acids	%	46,6 ^{x)}		OM	calculated
Sum polyunsaturated fatty acids	%	15,8 ^{x)}		OM	calculated
Sum trans fatty acids	%	0,2 ^{x)}		OM	calculated

x) The sum calculation is done without taking into account single values below limit of qualification or limit of quantification.
Explanation: "<" or "n.q." represent the fact that the concentration of the analyte is below the limit of quantification (LOQ).

Explanation: OM = on original matter; DM = on dry matter base

If tagatose is added there will be no distinction between fructose and tagatose.

Start of testing: 06.01.2020

End of testing: 15.01.2020

The analytical results are only valid for the delivered sample material. A plausibility check is hardly possible for samples of unknown origin. Duplication of this document or of parts of it requires the authorization from laboratory. The test results in this test report are displayed in a simplified manner according to the agreement made with you in writing according to the order confirmation. The display is in accordance with ISO/IEC 17025:2005, paragraph 5.10.1.

T. Noske

AGROLAB LUFA Frau Theresa Noske, Tel. 0431/1228-217
officially approved foodchemist
customer relation management

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