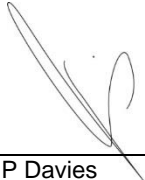


CERTIFICATE OF ANALYSIS

Product: Reishi / Lingzhi Mushroom Extract (High Terpene)
 Botanical/Plant Material: *Ganoderma lucidum*
 Manufactured for: Mushroom Guru (Pty) Ltd
 Production Date: 11 July 2017
 Expiration Date: 11 July 2019
 Lot Number: DV MGGL-EtOH:E 01-07/17
 Country of Origin: South Africa
 Harvesting protocol: In accordance with the conservation control authority of South Africa

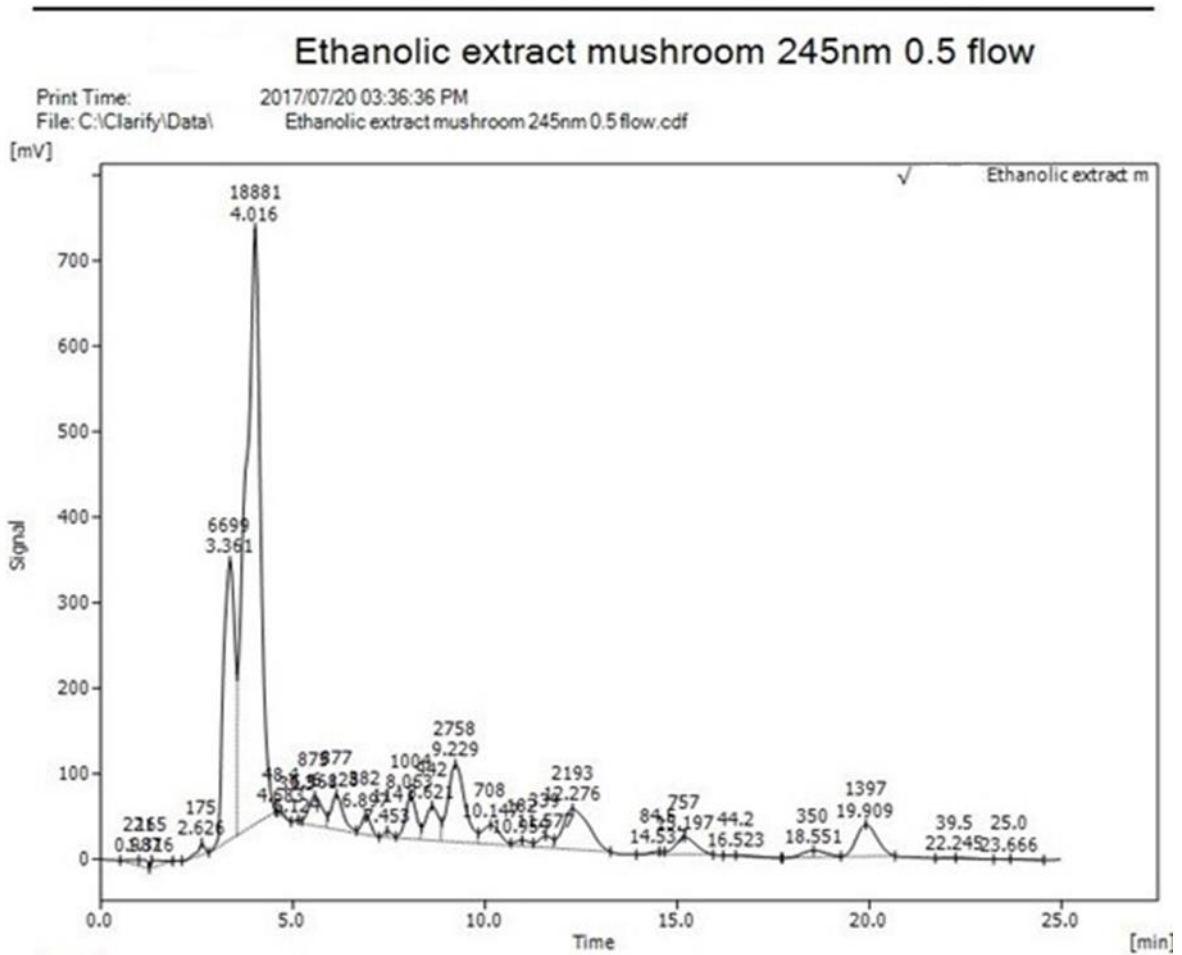
PARAMETER	SPECIFICATION	METHOD	RESULT
Plant Part Used:	Antler	Visual	Pass/Verified
Appearance:	Crystalline Powder	Visual	Pass/Verified
Colour:	Tan to Light Brown	Visual	Pass/Verified
Odour and Taste:	Odour and Taste Characteristic	Organoleptic	Pass/Verified
Plant / Extract Fraction:	50:1	S/L	Pass/Verified
Active Ingredient:	Ganoderic Acids & Related Terpenes	HPLC	Pass/Verified
Excipient:	None	3 rd party CoA	Pass/Verified
Solubility:	Hot Water Soluble	Physical	Pass/Verified
Moisture:	NMT 5%	AOAC 950.46	2.2%
TLC [Thin layer Chromatography]:	As per Reference Standard	TLC	Pass/Verified
Particle Size:	140-220µm	Sieve	Complies
Heavy Metals – Lead:	< 3.0ppm	AOAC 984.27	Complies
– Cadmium:	< 1.0ppm	AOAC 984.27	Complies
– Mercury:	< 0.10ppm	AOAC 984.27	Complies
Coliforms:	< 10cfu/g	ISO 4832	Non-detected
Total aerobic count:	< 1000cfu/g	MFHPB-18	Complies
Yeast and Mould:	< 100cfu/g	AOAC 6.1:1997	Complies
Escherichia Coli:	Absent	ISO 16649-2	Non-detected
Staph. Aureus:	Absent	ISO 6888-2	Non-detected
Salmonella:	Absent	SANS 6579:2003	Non-detected
Storage and Handling:	Closed, sealed storage container. Cool and dry conditions – less than 23° C This product is non-GMO		

Please keep dry and away from direct sunlight!


 R P Davies
 24 July 2017

*This information is believed to be current and correct but is provided without any warranty expressed or implied.
 Customers are advised to determine in advance the safe conditions of use for this product.*

HPLC Chromatograph



Method for Mushroom Guru

Column and size: Luna 5 µm C18, 150 x 4.6 mm
 Flow: 0.5mL/min
 Detection: UV 245nm
 Mobile phase: Methanol 90% (containing 0.5% acetic acid) : Water 10%

TLC

Chemical analysis of the extract

Preliminary chemical analysis of the extract was carried out to determine its major chemical constituents. The extract was tested for reaction with anthrone reagent (Yemm and Wills, 1954) and also the phenol–sulphuric acid reaction (Dubois et al., 1956), for detecting polysaccharide components. Thin layer chromatographic (TLC) analysis of extract was carried out on silica gel G using chloroform:methanol (90:10) as solvent system. The TLC plates were sprayed with vanillin-H₂SO₄ reagent or alcoholic FeCl₃ for detecting terpenes and phenolic compounds.