

CERTIFICATE OF ANALYSIS

Product Name: **SIBELIUS:SAGE**

Description: Dry aqueous ethanolic extract of sage leaf (*Salvia officinalis*)

Batch N°: 43625/N587

Manufacture date: June 2017

Retest date: May 2019

Country of origin: UK

Parameter	Specification	Test method	Result
Appearance	Fine green-brown powder	Visual	Complies
Particle size	≥85% passes 355µm sieve (45 mesh)	Internal (QC(P)-8-35)	Complies
Plant:Extract ratio	6.5 – 8.5:1	w/w	Complies
Loss on drying	≤ 7%	AOAC 934.01	4.39%
Total ash content	≤ 10%	AOAC 900.02	3.86%
Rosmarinic acid	≥ 2.5%	Covance Labs., USA	4.11%
Heavy metals: Lead Mercury Arsenic Cadmium Total heavy metals	≤ 2ppm ≤ 0.1ppm ≤ 1ppm ≤ 0.5ppm < 10ppm	ICP/MS USP<231>	0.053 ppm < 0.001 ppm 0.078 ppm 0.015 ppm < 10 ppm
Microbial limits: Total viable counts (TVC) Aerobic bacteria Yeasts Moulds <i>Salmonella</i> spp. <i>Escherichia coli</i> <i>Staphylococcus aureus</i>	≤ 10 ⁴ ≤ 10 ² ≤ 10 ² Absent in 10g Absent in 10g Absent in 10g	USP <2021, 2022>	< 10 cfu/g < 10 cfu/g < 10 cfu/g Absent in 10g Absent in 10g Absent in 10g
Pesticide residues	Meets USP <561>	USP <561>	Complies
Residual solvent	Meets USP <467>	USP <467>	EtOH 741 ppm

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CERTIFICATE OF ANALYSIS - BOTANICAL			
Supplier Company Name		SIBELIUS LIMITED	
Supplier Address, Contact Information		26 BEAUMONT STREET, OXFORD. OX1 2NP. UK TEL: +44 1865 518910 . EMAIL: steve.caiger@sibeliuslmited.com	
Manufacturing Location		UK	
Name of Manufacturer (if different than Supplier)		SIBELIUS LIMITED Facility: Quest Ingredients Ltd	
Factory Address		Units 1-5, Gooses Foot Industrial Estate, Kingstone. Hereford. HR2 9HY. UK	
GENERAL INFORMATION			
Product Name:		SIBELIUS SAGE	Customer Code: SIB4
Grade:		Descriptor or Number: N/A	Manufacturer Date: December 2017
Latin Name:		Salvia officinalis	Testing Date: 19 Jan 2018
Batch Number:		Value: 44878	Expiration/Retest Date: 11/2019
Extraction Solvent:		68% aqueous ethanol	
ANALYSIS			
ITEM DESCRIPTION	SPECIFICATION	TEST METHOD	RESULT
PRODUCT CHARACTERISTICS			
IDENTIFICATION	MEET STANDARD	HPTLC	COMPLIES
PLANT PART USED	Leaf	HPTLC	COMPLIES
CARRIER USED	N/A	Method / Reference	N/A
PLANT: EXTRACT RATIO	6.5 – 8.5:1	w/w	6.9:1
PHYSICAL TEST			
APPEARANCE	Fine green/brown powder	Visual	COMPLIES
COLOR	CHARACTERISTIC	Visual	COMPLIES
AROMA	CHARACTERISTIC	Organoleptic	COMPLIES
TASTE	CHARACTERISTIC / Detail if appropriate	Method / Reference	N/A
PARTICLE SIZE	≥ 85% passes 355µm sieve (45 mesh)	Internal w/w (QC(P)-8-35)	COMPLIES
TOTAL SOLIDS	N/A	Method / Reference	N/A
REFRACTIVE INDEX	N/A	Method / Reference	N/A
VISCOSITY	N/A	Method / Reference	N/A
SOLUBILITY IN WATER	Specify	Method / Reference	N/A
g/cc)	Specify	Method / Reference	N/A
CHEMICAL TEST			
ROSMARINIC ACID	Min 2.5%	UPLC	4.2%
MOISTURE	Max 7%	AOAC 934.01	3.67%
ASH	Max 10%	AOAC 900.02	7.04%
TOTAL HEAVY METALS	< 10 ppm	ICP/MS USP<231>	<10 ppm
ARSENIC	Max 1ppm	ICP/MS USP<231>	0.076 ppm
LEAD (AS Pb)	<1 ppm	ICP/MS USP<231>	0.082 ppm
MERCURY	Max 0.1 ppm	ICP/MS USP<231>	0.019 ppm
CADMIUM	Max 0.5 ppm	ICP/MS USP<231>	0.040 ppm
RESIDUAL SOLVENTS	Meet USP <467>	USP <467>	EtOH 1383 ppm
PESTICIDES	Meet USP <561>	USP <561>	COMPLIES
MICROBIOLOGICAL TEST			
TOTAL PLATE COUNT	NMT 10 ⁴ cfu/g	USP <2021, 2022>	<10 cfu/g
YEAST & MOULD	NMT 10 ² cfu/g	USP <2021, 2022>	<10 cfu/g
SALMONELLA	ABSENT (cfu/10g)	USP <2021, 2022>	Absent
E. COLI	ABSENT (cfu/10g)	USP <2021, 2022>	Absent
OTHER OPTIONAL INFORMATION			

Identity of Authorized Individual for Approval (including Title):

Stephen Caiger, Operations Director

Date of Approval:

1 February 2018