

CERTIFICATE OF ANALYSIS:

Pelargonium sidoides freeze-dried powder (ultrasonic extract). NLT 300ppm Umckalin

Product Batch Code: NANPS0516

MNF:05/2016 and EXP: 04/2021

Description	MOA	Specification	Result
Species		Pelargonium sidoides	Complies
Common name/s		Umckaloabo	Complies
Part Used		Tuber	Complies
Origin		South Africa	Complies
Taste		Slightly bitter, acidic, woody	Complies
Chemical classification		Organic, nutritive	Complies
Quality Control		Complies to reference standard for milled herbs/extracts (AfrHP)	Complies
Appearance		Reddish, brown powder	Complies
Moisture	*Bemlab	Not more than 5%	<3%
Scan for Active ingredient			
Umckalin	**CPUT	NLT 300ppm	338 ppm
ORAC	**CPUT	Not specified	
Microbiology			
Staphylococcus aureus	SWJM53	No Growth/Absent	No growth
Salmonella spp	SWJM58	No Growth/Absent	Absent
Escherichia coli	SWJM62	No Growth/Absent	No growth
TMA	SWJM35	No more than 10 ⁵ cfu/g	900 cfu/g
Yeast	SWJM50	No more than 10 ⁴ cfu/g	10 cfu/g
Mould	SWMJ50	No more than 10 ⁴ cfu/g	130 cfu/g
Coliforms	SWJM48	No more than 10 ³ cfu/g	Absent
Pesticide Residues			
Aldrin and Dieldrin	*Bemlab	Not more than 0.05mg/kg	Complies

These values correspond with guidelines as published by WHO (1998) and AfrHP (2010) are for general guidance only. National or other pharmacopoeial standards may need to be adhered to and may impose different standards.

NA = Not Applicable. ND = Not Determined.

MOA NOTES:

SWJM Methods = SANAS Accredited testing laboratory 10050 methods.

*Bemlab Method = MOA of Bemlab Laboratories Pty Ltd

** CPUT Method = MOA of Cape Peninsula University of Technology alkaloids identification method.

Date: August 2016

C Moir (Quality Control Manager)