

CERTIFICATE OF ANALYSIS

GENERAL INFORMATION

Report Date	30-Sep	Country of Origin	Vanuatu
Sample Number	S2185	Country of Processing	USA
Product Name	Traditional	Manufacture Date	Aug-24
Lot Number	VSSC2408-T9	Best By Date	Aug-27

ITEM	SPECIFICATION	TEST RESULTS	METHOD
------	---------------	--------------	--------

PHYSICAL & CHEMICAL

Identification	Piper methysticum	Complies	HPLC
Appearance	Beige to Yellow Powder	Complies	Organoleptic
Kavalactone Standard	2-17 % Kavalactones	8.69%	HPLC
Kavalactone Profile	Noble	Pass	HPLC
Chemotype	If # 5 is in 1st or 2nd in Abundance	245361	HPLC
K/DHM	> 1.2 for Noble	1.6	Calculation

HEAVY METALS

		Results	
Arsenic (As)	NMT 1,000 (ppb)*	44 ppb	FDA EAM 4.7
Cadmium (Cd)	NMT 1,000 (ppb)*	560 ppb	FDA EAM 4.7
Lead (Pb)	NMT 1,000 (ppb)*	63 ppb	FDA EAM 4.7
Mercury (Hg)	NMT 1,000 (ppb)*	< 10 ppb	FDA EAM 4.7

*Heavy Metals Action Limits Based on Maximum PDE at 5% Kavalactones. Results May Exceed 1,000 ppb action limit with higher kavalactone contents.

MICROBIOLOGICAL

		Results	
AEROBIC PLATE COUNT	NMT 10,000,000 cfu	230,000 cfu / 10g	USP 61
E. COLI	ABSENT (cfu/10g)	Absent cfu / 10g	USP 62
PSEUDOMONAS AERUGINOSA	ABSENT (cfu/10g)	Absent cfu / 10g	USP 62
SALMONELLA	ABSENT (cfu/10g)	Absent cfu / 10g	USP 62
STAPHYLOCOCCUS AUREUS	ABSENT (cfu/10g)	Absent cfu / 10g	USP 62
YEAST	NMT 100,000 cfu (Combined)	160 cfu / 10g	
MOLD		16,700 cfu / 10g	USP 2021
TOTAL YEAST & MOLD	NMT 100,000 cfu (Combined)	16,860 cfu / 10g	

cfu/g = Colony Forming Units Per Gram NMT = No More Than PDE = Permitted Daily Exposure PPB = Parts Per Billion

Analysis Performed by a Third-Party Laboratory

We are dedicated to offer the best quality of botanical products on the market. We test and stand behind our products.

*Disclaimer * The test results are accurate to the best of our knowledge and are based upon reputable laboratory and industry standard testing methods.*

These results should not be used as a final determination for use in a finished product. It is recommended that you verify these test results with an in-house quality control department or obtain an additional independent third-party lab to verify that this material meets specifications.

Botany Evolution, its board of directors, contract laboratories, employees, and affiliates are held harmless from any loss or damages resulting from the use or misuse of this document. The appropriate use of this product is the sole responsibility of the user of the purchasing party.

Authorized By (Name / Title):

Tony Seibeh / Manager

Signature:

Tony Seibeh