



CERTIFICATE OF ANALYSIS

STATUS: **RELEASED** REVISION: 00

DATE: 07/11/2022

Analysis ID No. 222832
 TDA License No. 2020002
 ISO/IEC No. 1055838
 Purchase Order: 20220810
 Page No. Page 1 of 2

CUSTOMER INFORMATION	SAMPLE INFORMATION
Client Name: Kat's Botanicals	Submitted Sample Name: Kratom Leaf Powder
Address: 619 Old Hickory Blvd, Old Hickory TN 37138	Submitted Sample Lot: 114074RBP
Phone Number: 877-301-9923	Submitted Sample Description: Green Powder in Plastic Bag w/ Zip Tie; Stored at Rm Temp
Contact Name / Email: N/A	Submitted Sample Product Type / Matrix: Kratom Leaf Powder / Plant Matter

ALKALOIDS ASSAY					
Analysis	Test Method	LOQ	Specifications	Test Results	Pass / Fail
Mitragynine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	1.172 w/w% 11.718 mg/g	Results Reported
Paynantheine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.259 w/w% 2.591 mg/g	Results Reported
Speciogynine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.152 w/w% 1.524 mg/g	Results Reported
Speciociliatine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.365 w/w% 3.654 mg/g	Results Reported
7-OH-Mitragynine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only % Total Alkaloids: NMT 2%	0.027 w/w% 0.272 mg/g 1.2% of Total	PASS
Mitraphylline	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	< 0.010 w/w%	Results Reported
Isorhynchophylline	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.036 w/w% 0.363 mg/g	Results Reported
Corynoxine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.178 w/w% 1.779 mg/g	Results Reported
Total Alkaloids	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	2.190 w/w% 21.902 mg/g	Results Reported

MICROBIOLOGICAL ASSAY					
Analysis	Test Method	LOQ	Specifications	Test Results	Pass / Fail
Total Aerobic Plate Count (TAPC)	Isolation Agar	20 CFU/gm	NMT 10,000,000 CFU/gm	66,500 CFU/gm	PASS
Total Yeast & Mold (TYM)	Isolation Agar	20 CFU/gm	NMT 100,000 CFU/gm	120 CFU/gm	PASS
Coliforms	Isolation Agar	20 CFU/gm	NMT 10,000 CFU/gm	595 CFU/gm	PASS
Escherichia coli (E.coli)	Isolation Agar	1 CFU/10 gm	Absent in 10 gm	Absent	PASS
Salmonella	Isolation Agar	1 CFU/25 gm	Absent in 25 gm	Absent	PASS

CERTIFICATE OF ANALYSIS

STATUS: **RELEASED** REVISION: 00

DATE: 07/11/2022

Analysis ID No. 222832
TDA License No. 2020002
ISO/IEC No. 1055838
Purchase Order: 20220810
Page No. Page 2 of 2

HEAVY METALS ASSAY					
Analysis	Test Method	LOQ	Specifications	Test Results	Pass / Fail
Lead	USP <232> <233> by ICP-MS	10 ppb	NMT 1000 ppb	245.3 ppb	PASS
Mercury	USP <232> <233> by ICP-MS	5 ppb	NMT 500 ppb	21.4 ppb	PASS
Arsenic	USP <232> <233> by ICP-MS	10 ppb	NMT 1500 ppb	229.9 ppb	PASS
Cadmium	USP <232> <233> by ICP-MS	10 ppb	NMT 300 ppb	40.6 ppb	PASS
Nickel	USP <232> <233> by ICP-MS	50 ppb	NMT 200,000 ppb	6,488.7 ppb	PASS

TESTING FACILITY INFORMATION	SAMPLE INFORMATION
Santé Laboratories 8201 East Riverside Drive, STE 650 Austin, Texas 78744 USA	Santé Sample ID: 222832 Receipt Date: 07/07/2022 / 9:10 AM CST / MH Receipt Condition: Good Analysis Start Date: 07/07/2022

ADDITIONAL REPORT NOTES
<p>The reported results presented in this document is only applicable to samples submitted to Santé Laboratories for testing and may not represent the entire lot and/or batch produced by the manufacturer. Heavy metal specifications according to limits defined by Texas DSHS for consumable hemp. Nickel specification according to oral drug products per USP <232>. Microbiological specifications follow AHPA guidelines for botanical ingredients (non-extract).</p> <p>©2020 Santé Laboratories, LLC – All Rights Reserved</p>

VERSION HISTORY		
Version	Effective Date	Summary of Changes
00	07/11/2022	Initial Release

PRODUCT SAMPLE / IMAGE


REVIEWED AND APPROVED BY
<p>DocuSigned by: <i>Brian Sloat</i> 1DA7685D65C740B...</p> <p>11 July 2022 3:33:55 PM PDT DD-MM-YY</p> <p>Brian Sloat, Ph.D. Chief Scientific Officer / Quality Manager Santé Laboratories</p> <p style="text-align: center;">Date</p>