



CERTIFICATE OF ANALYSIS

STATUS: **RELEASED** REVISION: 00

DATE: 06/03/2022

Analysis ID No. 222395
 TDA License No. 2020002
 ISO/IEC No. 1055838
 Purchase Order: 20220660
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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	1.529 w/w% 15.287 mg/g	Results Reported
Paynantheine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.356 w/w% 3.559 mg/g	Results Reported
Speciogynine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.221 w/w% 2.208 mg/g	Results Reported
Speciociliatine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.428 w/w% 4.277 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%	0.007 w/w% 0.068 mg/g 0.26% 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	0.010 w/w% 0.104 mg/g	Results Reported
Corynoxine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.023 w/w% 0.232 mg/g	Results Reported
Total Alkaloids	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	2.573 w/w% 25.734 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	70 CFU/gm	PASS
Total Yeast & Mold (TYM)	Isolation Agar	20 CFU/gm	NMT 100,000 CFU/gm	< LOQ	PASS
Coliforms	Isolation Agar	20 CFU/gm	NMT 10,000 CFU/gm	< LOQ	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

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HEAVY METALS ASSAY					
Analysis	Test Method	LOQ	Specifications	Test Results	Pass / Fail
Lead	USP <232> <233> by ICP-MS	10 ppb	NMT 1000 ppb	532.5 ppb	PASS
Mercury	USP <232> <233> by ICP-MS	5 ppb	NMT 500 ppb	24.4 ppb	PASS
Arsenic	USP <232> <233> by ICP-MS	10 ppb	NMT 1500 ppb	201.5 ppb	PASS
Cadmium	USP <232> <233> by ICP-MS	10 ppb	NMT 300 ppb	60.8 ppb	PASS
Nickel	USP <232> <233> by ICP-MS	50 ppb	NMT 200,000 ppb	3,807.8 ppb	PASS

TESTING FACILITY INFORMATION	SAMPLE INFORMATION
Santé Laboratories 8201 East Riverside Drive, STE 650 Austin, Texas 78744 USA	Santé Sample ID: 222395 Receipt Date: 05/26/2022 / 3:00 PM CST / P. Steinberg Receipt Condition: Good Analysis Start Date: 06/01/2022

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	06/03/2022	Initial Release

PRODUCT SAMPLE / IMAGE


REVIEWED AND APPROVED BY
<p>DocuSigned by: <i>Brian Sloat</i> 1DA7685D65C740B...</p> <p>03 June 2022 5:46:50 PM PDT Date</p> <p>DD-MM-YY</p> <p>Brian Sloat, Ph.D. Chief Scientific Officer / Quality Manager Santé Laboratories</p>