



CERTIFICATE OF ANALYSIS

STATUS: **RELEASED** REVISION: 00

DATE: 09/01/2020

Analysis ID No. 201089
 TDA License No. 2020002
 ISO/IEC No. 1055838
 Customer No. 20201307
 Page No. Page 1 of 2

CUSTOMER INFORMATION	SAMPLE INFORMATION
Company Name: GrassRoots Harvest	Submitted Sample Name: White Sumatra
Address: 321 W. Ben White Blvd, #103; Austin, TX 78704 USA	Submitted Sample Lot: 07-2020 WS10
Phone Number: 830-660-9770	Submitted Sample Description: Kratom powder in sealed bag; Arrived/Stored at Room Temp
Contact Name / Email: Crystal Harral / crystal@grassrootsharvest.com	Submitted Sample Product Type / Matrix: Kratom / Leaf Powder

ALKALOIDS ASSAY					
Analysis	Test Method	LOQ	Specifications	Test Results	Pass / Fail
Mitaphylline	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	ND	Results Reported
7-OH-Mitragynine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only % Total Alkaloids: NMT 2%	ND	PASS
Paynantheine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.1952 w/w% 1.952 mg/g	Results Reported
Speciogynine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.2218 w/w% 2.218 mg/g	Results Reported
Mitragynine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	1.2706 w/w% 12.706 mg/g	Results Reported
Total Alkaloids	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	2.2001 w/w% 22.001 mg/g	Results Reported

HEAVY METALS					
Analysis	Test Method	LOQ	Specifications	Test Results	Pass / Fail
Lead	USP <232> <233> by ICP-MS	10 ppb	NMT 1,000 ppb	447.6 ppm	PASS
Mercury	USP <232> <233> by ICP-MS	5 ppb	NMT 500 ppb	17.3 ppm	PASS
Arsenic	USP <232> <233> by ICP-MS	10 ppb	NMT 1,500 ppb	182.7 ppm	PASS
Cadmium	USP <232> <233> by ICP-MS	10 ppb	NMT 300 ppb	29.9 ppm	PASS
Nickel	USP <232> <233> by ICP-MS	10 ppb	NMT 200,000 ppb	5,530 ppm	PASS

MICROBIOLOGICAL					
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	48,100 CFU/gm	PASS
Total Yeast & Mold (TYM)	Isolation Agar	20 CFU/gm	NMT 100,000 CFU/gm	14,200 CFU/gm	PASS
Escherichia coli (E.coli)	Isolation Agar	1 CFU/25g	Absent	ND	PASS
Salmonella	Isolation Agar	1 CFU/25g	Absent	ND	PASS

Santé Laboratories, LLC - 8201 East Riverside Drive, STE 650, Austin, Texas 78744 USA
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TESTING FACILITY INFORMATION	SAMPLE INFORMATION
Santé Laboratories 8201 East Riverside Drive, STE 650 Austin, Texas 78744 USA	Santé Sample ID: 201089 Receipt Date: 8/24/2020 / 3:45 PM CST / M. PHILLIPS Receipt Condition: Good Analysis Start Date: 8/24/2020

ADDITIONAL REPORT NOTES

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. **Microbiology specifications follow AHPA recommendations for botanical ingredients.** ©2020 Santé Laboratories, LLC – All Rights Reserved

VERSION HISTORY

Version	Effective Date	Summary of Changes
00	09/01/2020	Initial Release

PRODUCT SAMPLE / IMAGE



REVIEWED AND APPROVED BY

DocuSigned by: Brian R Sloat 51277B7C6FDA460...	9/1/2020 Date	DD-MM-YY
Brian Sloat, Ph.D. Chief Scientific Officer / Quality Manager Santé Laboratories		