



# CERTIFICATE OF ANALYSIS

STATUS: **RELEASED** REVISION: 00

DATE: 06/27/2022

Analysis ID No. 222677  
 TDA License No. 2020002  
 ISO/IEC No. 1055838  
 Purchase Order: 20220756  
 Page No. Page 1 of 3

CUSTOMER INFORMATION	SAMPLE INFORMATION
<b>Company Name:</b>	<b>Submitted Sample Name:</b>
Steding & Sons Mercantile	Kratom Leaf Powder
<b>Address:</b>	<b>Submitted Sample Lot:</b>
1501 Panther Loop #7A Plugerville, TX 78660	R151020B
<b>Phone Number:</b>	<b>Submitted Sample Description:</b>
512-704-3680	Kratom in Dark Container; Stored at Room Temp
<b>Contact Name / Email:</b>	<b>Submitted Sample Product Type / Matrix:</b>
Jeremy Steding / info@1863kratom.com	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	1.054 w/w% 10.541 mg/g	Results Reported
Paynantheine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.253 w/w% 2.531 mg/g	Results Reported
Speciogynine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.181 w/w% 1.810 mg/g	Results Reported
Speciociliatine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.611 w/w% 6.106 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%	0.005 w/w% 0.052 mg/g 0.24% 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	0.014 w/w% 0.143 mg/g	Results Reported
Corynoxine	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	0.028 w/w% 0.276 mg/g	Results Reported
Total Alkaloids	UHPLC-DAD	0.01 w/w%	w/w%: Report Only mg/g: Report Only	2.146 w/w% 21.459 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	925 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	602.5 ppb	PASS
Mercury	USP <232> <233> by ICP-MS	5 ppb	NMT 500 ppb	27.0 ppb	PASS
Arsenic	USP <232> <233> by ICP-MS	10 ppb	NMT 1500 ppb	683.7 ppb	PASS
Cadmium	USP <232> <233> by ICP-MS	10 ppb	NMT 300 ppb	28.5 ppb	PASS
Nickel	USP <232> <233> by ICP-MS	50 ppb	NMT 200,000 ppb	2,459.6 ppb	PASS

PESTICIDES ASSAY					
Analysis	Test Method	LOQ	Specifications	Test Results	Pass / Fail
Acetamiprid	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 0.200 ppm	< LOQ	PASS
Aldicarb	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 0.400 ppm	< LOQ	PASS
Azoxystrobin	LC-MS/MS & GC-MS/MS	0.010 ppm	NMT 0.200 ppm	< LOQ	PASS
Bifenazate	LC-MS/MS & GC-MS/MS	0.005 ppm	NMT 0.200 ppm	< LOQ	PASS
Boscalid	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 0.200 ppm	< LOQ	PASS
Carbaryl (Sevin)	LC-MS/MS & GC-MS/MS	0.100 ppm	NMT 0.500 ppm	< LOQ	PASS
Carbofuran	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 0.200 ppm	< LOQ	PASS
Chlorantraniliprole	LC-MS/MS & GC-MS/MS	0.100 ppm	NMT 0.200 ppm	< LOQ	PASS
Chlorpyrifos	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 0.600 ppm	< LOQ	PASS
Cypermethrin	LC-MS/MS & GC-MS/MS	0.025 ppm	NMT 18.0 ppm	< LOQ	PASS
Diazinon	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 2.600 ppm	< LOQ	PASS
Dichlorvos	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 0.100 ppm	< LOQ	PASS
Ethoprophos (Prophos)	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 0.400 ppm	< LOQ	PASS
Etofenprox	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 0.400 ppm	< LOQ	PASS
Fipronil	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 1.000 ppm	< LOQ	PASS
Fonicamid	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 1.000 ppm	< LOQ	PASS
Imidacloprid	LC-MS/MS & GC-MS/MS	0.005 ppm	NMT 0.400 ppm	< LOQ	PASS
Metalaxyl	LC-MS/MS & GC-MS/MS	0.100 ppm	NMT 0.200 ppm	< LOQ	PASS
Methiocarb	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 0.400 ppm	< LOQ	PASS

Santé Laboratories, LLC - 8201 East Riverside Drive, STE 650, Austin, Texas 78744 USA  
Email: [Testing@santelabs.com](mailto:Testing@santelabs.com) - Telephone: 512-309-5830 - Website: [www.santelabs.com](http://www.santelabs.com)

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# CERTIFICATE OF ANALYSIS

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PESTICIDES ASSAY					
Analysis	Test Method	LOQ	Specifications	Test Results	Pass / Fail
Methomyl	LC-MS/MS & GC-MS/MS	0.200 ppm	NMT 0.400 ppm	< LOQ	PASS
Methyl parathion	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 8.500 ppm	< LOQ	PASS
Myclobutanil	LC-MS/MS & GC-MS/MS	0.005 ppm	NMT 0.300 ppm	< LOQ	PASS
Oxamyl	LC-MS/MS & GC-MS/MS	0.250 ppm	NMT 1.000 ppm	< LOQ	PASS
Permethrin (mix of isomers)	LC-MS/MS & GC-MS/MS	0.020 ppm	NMT 1.100 ppm	< LOQ	PASS
Pyridaben	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 0.200 ppm	< LOQ	PASS
Spiroxamine	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 2.000 ppm	< LOQ	PASS
Tebuconazole	LC-MS/MS & GC-MS/MS	0.005 ppm	NMT 0.400 ppm	< LOQ	PASS
Thiacloprid	LC-MS/MS & GC-MS/MS	0.050 ppm	NMT 0.200 ppm	< LOQ	PASS
Thiamethoxam	LC-MS/MS & GC-MS/MS	0.025 ppm	NMT 0.200 ppm	< LOQ	PASS

TESTING FACILITY INFORMATION	SAMPLE INFORMATION
<b>Santé Laboratories</b> 8201 East Riverside Drive, STE 650 Austin, Texas 78744 USA	<b>Santé Sample ID:</b> 222677 <b>Receipt Date:</b> 06/20/2022/ 5:40 PM CST / C Ritchie <b>Receipt Condition:</b> Good <b>Analysis Start Date:</b> 06/22/2022

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. <b>Heavy metal specifications according to limits defined by Texas DSHS for consumable hemp. Nickel specification according to oral drug products per USP &lt;232&gt;. Microbiological specifications follow AHPA guidelines for botanical ingredients (non-extract).</b> ©2020 Santé Laboratories, LLC – All Rights Reserved

VERSION HISTORY		
Version	Effective Date	Summary of Changes
00	06/27/2022	Initial Release

PRODUCT SAMPLE / IMAGE


REVIEWED AND APPROVED BY		
DocuSigned by:  Brian Sloat, Ph.D. Chief Scientific Officer / Quality Manager Santé Laboratories	27 June 2022   4:35:05 PM PDT Date	DD-MM-YY