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# CERTIFICATE OF ANALYSIS

**STATUS:** RELEASED **REVISION:** 00
**DATE:** 07/18/2022

**Analysis ID No.** 222892
**TDA License No.** 2020002
**ISO/IEC No.** 1055838
**Purchase Order:** 2022083
**Page No.** Page 1 of 2

| CUSTOMER INFORMATION | SAMPLE INFORMATION |
|---|---|
| **Client Name:** | **Submitted Sample Name:** |
| Kat's Botanicals | Kratom Leaf Powder |
| **Address:** | **Submitted Sample Lot:** |
| 619 Old Hickory Blvd, Old Hickory TN 37138 | 116272RBC |
| **Phone Number:** | **Submitted Sample Description:** |
| 877-301-9923 | Green Powder in Plastic Bag w/ Zip Tie; Stored at Rm Temp |
| **Contact Name / Email:** | **Submitted Sample Product Type / Matrix:** |
| N/A | Kratom Leaf / Powder |

**ALKALOIDS ASSAY**

| Analysis | Test Method | LOQ | Specifications | Test Results | Pass / Fail |
|---|---|---|---|---|---|
| Mitragynine | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only<br>mg/g: Report Only | 1.209 w/w%<br>12.087 mg/g | Results Reported |
| Paynantheine | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only<br>mg/g: Report Only | 0.271 w/w%<br>2.711 mg/g | Results Reported |
| Speciogynine | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only<br>mg/g: Report Only | 0.161 w/w%<br>1.613 mg/g | Results Reported |
| Speciociliatine | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only<br>mg/g: Report Only | 0.354 w/w%<br>3.541 mg/g | Results Reported |
| 7-OH-Mitragynine | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only<br>mg/g: Report Only<br>% Total Alkaloids: NMT 2% | 0.025 w/w%<br>0.246 mg/g<br>1.1% of Total | PASS |
| Mitraphylline | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only<br>mg/g: Report Only | < 0.010 w/w% | Results Reported |
| Isorhynchophylline | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only<br>mg/g: Report Only | 0.043 w/w%<br>0.433 mg/g | Results Reported |
| Corynoxine | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only<br>mg/g: Report Only | 0.163 w/w%<br>1.628 mg/g | Results Reported |
| Total Alkaloids | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only<br>mg/g: Report Only | 2.226 w/w%<br>22.259 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 | 165,000 CFU/gm | PASS |
| Total Yeast & Mold (TYM) | Isolation Agar | 20 CFU/gm | NMT 100,000 CFU/gm | 130 CFU/gm | 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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# CERTIFICATE OF ANALYSIS

**STATUS:** RELEASED **REVISION:** 00
**DATE:** 07/18/2022



**HEAVY METALS ASSAY**

| Analysis | Test Method | LOQ | Specifications | Test Results | Pass / Fail |
|---|---|---|---|---|---|
| Lead | USP <232> <233> by ICP-MS | 10 ppb | NMT 1000 ppb | 276.4 ppb | PASS |
| Mercury | USP <232> <233> by ICP-MS | 5 ppb | NMT 500 ppb | 20.9 ppb | PASS |
| Arsenic | USP <232> <233> by ICP-MS | 10 ppb | NMT 1500 ppb | 248.6 ppb | PASS |
| Cadmium | USP <232> <233> by ICP-MS | 10 ppb | NMT 300 ppb | 50.0 ppb | PASS |
| Nickel | USP <232> <233> by ICP-MS | 50 ppb | NMT 200,000 ppb | 6,818.3 ppb | PASS |

| TESTING FACILITY INFORMATION | SAMPLE INFORMATION |
|---|---|
| **Santé Laboratories**<br>8201 East Riverside Drive, STE 650<br>Austin, Texas 78744 USA | **Santé Sample ID:** 222892<br>**Receipt Date:** 11 July 2022 /16:12 PM CST / PS<br>**Receipt Condition:** Good **Analysis Start Date:** 11 July 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. **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).**
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**VERSION HISTORY**

| Version | Effective Date | Summary of Changes |
|---|---|---|
| 00 | 07/18/2022 | Initial Release |

**PRODUCT SAMPLE / IMAGE**




**REVIEWED AND APPROVED BY**

DocuSigned by:
Brian Sloat
1DA7685D65C740B...

18 July 2022 | 2:56:25 PM PDT
DD-MM-YY

**Brian Sloat, Ph.D.**
Chief Scientific Officer / Quality Manager
Santé Laboratories

Date


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