



CERTIFICATE OF ANALYSIS

STATUS: **RELEASED** REVISION: 00

DATE: 01/13/2023

Analysis ID No. 230050
 TDA License No. 2020002
 ISO/IEC No. 1055838
 Purchase Order: 20230011
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| SAMPLE INFORMATION | |
|--|--|
| Submitted Sample Name: | 12312208 |
| Submitted Sample Lot: | N/A |
| Submitted Sample Description: | Grn Pwdr in Transparent / Black Pouch; Stored at Rm Temp |
| Submitted Sample Product Type / Matrix: | 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 mg/g: Report Only | 1.590 w/w% 15.895 mg/g | Results Reported |
| Paynantheine | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only mg/g: Report Only | 0.325 w/w% 3.254 mg/g | Results Reported |
| Speciogynine | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only mg/g: Report Only | 0.248 w/w% 2.482 mg/g | Results Reported |
| Speciociliatine | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only mg/g: Report Only | 0.241 w/w% 2.415 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% | < 0.010 w/w% | 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% | Results Reported |
| Corynoxine | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only mg/g: Report Only | < 0.010 w/w% | Results Reported |
| Total Alkaloids | UHPLC-DAD | 0.01 w/w% | w/w%: Report Only mg/g: Report Only | 2.405 w/w% 24.046 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 | 630 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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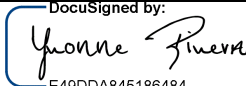
| HEAVY METALS ASSAY | | | | | |
|--------------------|------------------------------|--------|-----------------|--------------|-------------|
| Analysis | Test Method | LOQ | Specifications | Test Results | Pass / Fail |
| Lead | USP <232> <233> by ICP-MS | 10 ppb | NMT 1000 ppb | 792.0 ppb | PASS |
| Mercury | USP <232> <233> by ICP-MS | 5 ppb | NMT 500 ppb | 13.3 ppb | PASS |
| Arsenic | USP <232> <233> by ICP-MS | 10 ppb | NMT 1500 ppb | 160.5 ppb | PASS |
| Cadmium | USP <232> <233> by ICP-MS | 10 ppb | NMT 300 ppb | 22.6 ppb | PASS |
| Nickel | USP <232> <233> by ICP-MS | 50 ppb | NMT 200,000 ppb | 3,028.5 ppb | PASS |

| TESTING FACILITY INFORMATION | SAMPLE INFORMATION |
|--|--|
| Santé Laboratories 8201 East Riverside Drive, STE 650 Austin, Texas 78744 USA | Santé Sample ID: 230050 Receipt Date: 01/05/2023 / 13:30 PM CST / M Husain Receipt Condition: Good Analysis Start Date: 01/05/2023 |

| 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 | 01/13/2023 | Initial Release |

| PRODUCT SAMPLE / IMAGE |
|---|
|  |

| REVIEWED AND APPROVED BY | |
|--|--|
| <p>DocuSigned by:  E49DDA845186484... Yvonne Rivera Data Management Specialist Santé Laboratories</p> | <p>13 January 2023 2:22:15 PM PST _____ Date</p> |