# Certificate of Analysis

## Customer Information

**Client:** Kats Botanicals
**Attention:** mike@katsbotanicals.com
**Address:** 750 Hickory Industrial
Old Hickory, TN 37138

## Testing Facility

**Lab:** Cora Science, LLC
**Address** 8000 Anderson Square, STE 113
Austin, Texas 78757
**Contact:** info@corascience.com
(512) 856-5007

## Sample Image(s)




## Sample Information

**Name:** Kratom Leaf Powder with Extract
**Lot Number:** 700042RGRC
**Description:** Finely ground plant material
**Condition:** Good
**Job ID:** ISO03111
**Sample ID:** I07955
**Received:** 13JAN2025
**Completed:** 15JAN2025
**Issued:** 15JAN2025

# Test Results

**Mitragyna Alkaloids (UHPLC-DAD)** **Method Code: T102** **Tested: 13JAN2025 | 2101**

| PARAMETER | SPECIFICATION | RESULT | UNIT | LOQ | NOTES |
|---|---|---|---|---|---|
| Mitragynine | Report Results | 2.36 | w/w% | 0.011 | N/A |
| 7-Hydroxymitragynine | Report Results | <LOQ | w/w% | 0.003 | N/A |
| Paynantheine | Report Results | 0.425 | w/w% | 0.011 | N/A |
| Speciogynine | Report Results | 0.319 | w/w% | 0.011 | N/A |
| Speciociliatine | Report Results | 0.539 | w/w% | 0.011 | N/A |
| Total Mitragyna Alkaloids | Report Results | 3.64 | w/w% | 0.011 | N/A |

**Elemental Impurities (ICP-MS)** **Method Code: T301** **Tested: 14JAN2025 | 1056**

| PARAMETER | SPECIFICATION | RESULT | UNIT | LOQ | NOTES |
|---|---|---|---|---|---|
| Arsenic | NMT 2.00 | 0.516 | ug/g | 0.006 | PASS |
| Cadmium | NMT 0.50 | 0.025 | ug/g | 0.002 | PASS |
| Mercury | NMT 0.20 | 0.093 | ug/g | 0.002 | PASS |
| Lead | NMT 5.00 | 0.733 | ug/g | 0.002 | PASS |

**Residual Solvents: Class I (GC-MS)** **Method Code: T201** **Tested: 14JAN2025 | 1022**

| PARAMETER | SPECIFICATION | RESULT | UNIT | LOQ | NOTES |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | NMT 8 | <LOQ | ug/g | 0.4 | PASS |
| 1,1,1-Trichloroethane | NMT 1500 | <LOQ | ug/g | 75 | PASS |
| Tetrachloromethane | NMT 4 | <LOQ | ug/g | 0.2 | PASS |
| Benzene | NMT 2 | <LOQ | ug/g | 0.1 | PASS |
| 1,2-Dichloroethane | NMT 5 | <LOQ | ug/g | 0.25 | PASS |

**Residual Solvents: Class II (GC-MS)** **Method Code: T201** **Tested: 14JAN2025 | 1022**

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| PARAMETER | SPECIFICATION | RESULT | UNIT | LOQ | NOTES |
|---|---|---|---|---|---|
| Methanol | NMT 3000 | <LOQ | ug/g | 94 | PASS |
| Acetonitrile | NMT 410 | <LOQ | ug/g | 20.5 | PASS |
| Dichloromethane | NMT 600 | <LOQ | ug/g | 30 | PASS |
| 1,2-Dichloroethene, (E) | NMT 1870 | <LOQ | ug/g | 93.5 | PASS |
| 1,2-Dichloroethene, (Z) | NMT 1870 | <LOQ | ug/g | 93.5 | PASS |
| Tetrahydrofuran | NMT 720 | <LOQ | ug/g | 36 | PASS |
| Cyclohexane | NMT 3880 | <LOQ | ug/g | 194 | PASS |
| Methylcyclohexane | NMT 1180 | <LOQ | ug/g | 59 | PASS |
| 1,4-Dioxane | NMT 380 | <LOQ | ug/g | 19 | PASS |
| Toluene | NMT 890 | <LOQ | ug/g | 44.5 | PASS |
| Chlorobenzene | NMT 360 | <LOQ | ug/g | 18 | PASS |
| Ethylbenzene | NMT 2170 | <LOQ | ug/g | 108.5 | PASS |
| o/p-Xylene | NMT 2170 | <LOQ | ug/g | 108.5 | PASS |
| m-Xylene | NMT 2170 | <LOQ | ug/g | 108.5 | PASS |
| Isopropylbenzene | NMT 70 | <LOQ | ug/g | 3.5 | PASS |
| Hexane | NMT 290 | <LOQ | ug/g | 14.5 | PASS |
| Nitromethane | NMT 50 | <LOQ | ug/g | 2.5 | PASS |
| Chloroform | NMT 60 | <LOQ | ug/g | 3 | PASS |
| 1,2-Dimethoxyethane | NMT 100 | <LOQ | ug/g | 5 | PASS |
| Trichloroethene | NMT 80 | <LOQ | ug/g | 4 | PASS |
| Pyridine | NMT 200 | <LOQ | ug/g | 10 | PASS |
| 2-Hexanone | NMT 50 | <LOQ | ug/g | 2.5 | PASS |
| Tetralin | NMT 100 | <LOQ | ug/g | 5 | PASS |

**Residual Solvents: Class III (GC-MS)** **Method Code: T201** **Tested: 14JAN2025 | 1022**

| PARAMETER | SPECIFICATION | RESULT | UNIT | LOQ | NOTES |
|---|---|---|---|---|---|
| Pentane | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Ethanol | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Diethyl Ether | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Acetone | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Ethyl Formate | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Isopropanol | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Methyl Acetate | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Methyl tert-Butyl Ether | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| 1-Propanol | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| 2-Butanone | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Ethyl Acetate | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| 2-Butanol | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| 2-Methyl-1-Propanol | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Isopropyl Acetate | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Heptane | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| 1-Butanol | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Propyl Acetate | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| 4-Methyl-2-Pentanone | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Isoamyl Alcohol | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Isobutyl Acetate | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| 1-Pentanol | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Butyl Acetate | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Dimethylsulfoxide | NMT 5000 | <LOQ | ug/g | 125 | PASS |
| Anisole | NMT 5000 | <LOQ | ug/g | 125 | PASS |

**Microbiological Examination** **Method Code: T005** **Tested: 13JAN2025 | 1435**

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| PARAMETER | SPECIFICATION | RESULT | UNIT | LOQ | NOTES |
|---|---|---|---|---|---|
| Total Aerobic Plate Count | 10,000,000 CFU / g | 6,813 | CFU/g | 20 CFU / g | PASS |
| Total Yeast and Mold | 100,000 CFU / g | 2,800 | CFU/g | 20 CFU / g | PASS |
| Total Coliforms | 10,000 CFU / g | 340 | CFU/g | 20 CFU / g | PASS |
| Escherichia coli | Not Detected in 10 g | Not Detected | N/A | 1 CFU / 10 g | PASS |
| Salmonella | Not Detected in 25 g | Not Detected | N/A | 1 CFU / 25 g | PASS |

## Additional Report Notes

N/A

## Revision History

rev 00 - Initial release.
rev 01 - Added T005 results.

## Abbreviations

**ID:** identification, **N/A:** not applicable, **LOQ:** limit of quantitation, **CFU:** colony forming units, **w/w%:** weight by weight percent, **mg:** milligrams, **g:** grams, **ug:** micrograms, **mL:** milliliters, **ND:** not detected, **<LOQ:** below limit of quantitation, **NMT:** no more than, **NLT:** no less than, **UHPLC:** ultra-high performance liquid chromatography, **GC:** gas chromatography, **DAD:** diode array detection/detector, **MS:** mass spectroscopy/spectrometer, **ICP:** inductively coupled plasma, **ISO:** International Organization for Standardization, **USP:** United States Pharmacopeia

## Authorization

This report has been authorized for release from Cora Science by:

**Signature:** Tyler West

**Name:** Tyler West

**Position:** Laboratory Director
**Department:** Management
**Date:** 15JAN2025

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