# Certificate of Analysis

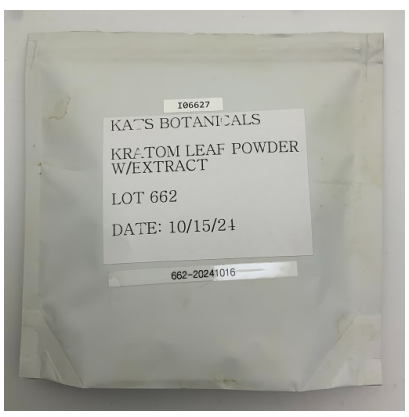
## Customer Information

**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:** KBE-662-TPS
**Lot Number:** 662062SGMDP
**Description:** Blended botanical extract and plant material
**Condition:** Good
**Job ID:** ISO02669
**Sample ID:** I06627
**Received:** 21OCT2024
**Completed:** 25OCT2024
**Issued:** 28OCT2024

# Test Results

**Mitragyna Alkaloids (UHPLC-DAD)** **Method Code: T102** **Tested: 24OCT2024 | 2201**

| PARAMETER | SPECIFICATION | RESULT | UNIT | LOQ | NOTES |
|---|---|---|---|---|---|
| Mitragynine | Report Results | 3.36 | w/w% | 0.011 | N/A |
| 7-Hydroxymitragynine | Report Results | 0.012 | w/w% | 0.0030 | N/A |
| Paynantheine | Report Results | 0.588 | w/w% | 0.011 | N/A |
| Speciogynine | Report Results | 0.424 | w/w% | 0.011 | N/A |
| Speciociliatine | Report Results | 0.586 | w/w% | 0.011 | N/A |
| Total Mitragyna Alkaloids | Report Results | 4.97 | w/w% | 0.011 | N/A |

**Elemental Impurities (ICP-MS)** **Method Code: T301** **Tested: 23OCT2024 | 1431**

| PARAMETER | SPECIFICATION | RESULT | UNIT | LOQ | NOTES |
|---|---|---|---|---|---|
| Arsenic | NMT 2.00 | 0.125 | ug/g | 0.006 | PASS |
| Cadmium | NMT 0.50 | 0.011 | ug/g | 0.002 | PASS |
| Mercury | NMT 0.20 | 0.005 | ug/g | 0.002 | PASS |
| Lead | NMT 5.00 | 0.484 | ug/g | 0.002 | PASS |

**Residual Solvents: Class I (GC-MS)** **Method Code: T201** **Tested: 23OCT2024 | 0105**

| PARAMETER | SPECIFICATION | RESULT | UNIT | LOQ | NOTES |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | NMT 8 | <LOQ | ug/g | 0.40 | PASS |
| 1,1,1-Trichloroethane | NMT 1500 | <LOQ | ug/g | 75.0 | PASS |
| Tetrachloromethane | NMT 4 | <LOQ | ug/g | 0.20 | PASS |
| Benzene | NMT 2 | <LOQ | ug/g | 0.10 | PASS |
| 1,2-Dichloroethane | NMT 5 | <LOQ | ug/g | 0.25 | PASS |

**Residual Solvents: Class II (GC-MS)** **Method Code: T201** **Tested: 23OCT2024 | 0105**

This report, prepared by Cora Science, LLC, shall not be reproduced except in its entirety without prior written approval. All test articles are analyzed as received and the results relate only to the specific sample of material or product analyzed. Test methods are performed in a laboratory accredited to ISO/IEC 17025:2017 in the field of testing by PJLA (Accreditation #116374) or a registered outsourcing facility. Some test methods reported may fall outside the scope of L22-250 supplement.

| 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 | 14 | ug/g | 30.0 | 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 | 36.0 | PASS |
| Cyclohexane | NMT 3880 | <LOQ | ug/g | 194 | PASS |
| Methylcyclohexane | NMT 1180 | <LOQ | ug/g | 59.0 | PASS |
| 1,4-Dioxane | NMT 380 | <LOQ | ug/g | 19.0 | PASS |
| Toluene | NMT 890 | <LOQ | ug/g | 44.5 | PASS |
| Chlorobenzene | NMT 360 | <LOQ | ug/g | 18.0 | PASS |
| Ethylbenzene | NMT 2170 | <LOQ | ug/g | 109 | PASS |
| o/p-Xylene | NMT 2170 | <LOQ | ug/g | 109 | PASS |
| m-Xylene | NMT 2170 | <LOQ | ug/g | 109 | PASS |
| Isopropylbenzene | NMT 70 | <LOQ | ug/g | 3.50 | PASS |
| Hexane | NMT 290 | <LOQ | ug/g | 14.5 | PASS |
| Nitromethane | NMT 50 | <LOQ | ug/g | 2.50 | PASS |
| Chloroform | NMT 60 | <LOQ | ug/g | 3.00 | PASS |
| 1,2-Dimethoxyethane | NMT 100 | <LOQ | ug/g | 5.00 | PASS |
| Trichloroethene | NMT 80 | <LOQ | ug/g | 4.00 | PASS |
| Pyridine | NMT 200 | <LOQ | ug/g | 10.00 | PASS |
| 2-Hexanone | NMT 50 | <LOQ | ug/g | 2.50 | PASS |
| Tetralin | NMT 100 | <LOQ | ug/g | 5.00 | PASS |

**Residual Solvents: Class III (GC-MS)** **Method Code: T201** **Tested: 23OCT2024 | 0105**

| 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: 23OCT2024 | 1110**

This report, prepared by Cora Science, LLC, shall not be reproduced except in its entirety without prior written approval. All test articles are analyzed as received and the results relate only to the specific sample of material or product analyzed. Test methods are performed in a laboratory accredited to ISO/IEC 17025:2017 in the field of testing by PJLA (Accreditation #116374) or a registered outsourcing facility. Some test methods reported may fall outside the scope of L22-250 supplement.

| PARAMETER | SPECIFICATION | RESULT | UNIT | LOQ | NOTES |
|---|---|---|---|---|---|
| Total Aerobic Plate Count | 10,000,000 CFU / g | 8,665 | N/A | 20 CFU / g | PASS |
| Total Yeast and Mold | 100,000 CFU / g | 60 | N/A | 20 CFU / g | PASS |
| Total Coliforms | 10,000 CFU / g | 220 | N/A | 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.

## 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:** 28OCT2024

This report, prepared by Cora Science, LLC, shall not be reproduced except in its entirety without prior written approval. All test articles are analyzed as received and the results relate only to the specific sample of material or product analyzed. Test methods are performed in a laboratory accredited to ISO/IEC 17025:2017 in the field of testing by PJLA (Accreditation #116374) or a registered outsourcing facility. Some test methods reported may fall outside the scope of L22-250 supplement.