



# 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-KKLA-60  
**Lot Number:** 7125  
**Description:** Liquid botanical extract  
**Condition:** Good  
**Job ID:** ISO07145  
**Sample ID:** I20016  
**Received:** 20MAY2026  
**Completed:** 26MAY2026  
**Issued:** 26MAY2026

## Test Results

| Mitragyna Alkaloids (UHPLC-DAD) |                | Method Code: T102 |         | Tested: 20MAY2026   1858 |       |  |
|---------------------------------|----------------|-------------------|---------|--------------------------|-------|--|
| PARAMETER                       | SPECIFICATION  | RESULT            | UNIT    | LOQ                      | NOTES |  |
| Mitragynine                     | Report Results | 169               | mg/unit | 0.12                     | N/A   |  |
| 7-Hydroxymitragynine            | Report Results | 0.144             | mg/unit | 0.12                     | N/A   |  |
| Paynantheine                    | Report Results | 18.3              | mg/unit | 0.12                     | N/A   |  |
| Speciogynine                    | Report Results | 12.0              | mg/unit | 0.12                     | N/A   |  |
| Speciociliatine                 | Report Results | 4.44              | mg/unit | 0.12                     | N/A   |  |
| Total Mitragyna Alkaloids       | Report Results | 204               | mg/unit | 0.12                     | N/A   |  |

| Mitragyna Alkaloids (UHPLC-DAD) |                | Method Code: T102 |      | Tested: 20MAY2026   1858 |       |  |
|---------------------------------|----------------|-------------------|------|--------------------------|-------|--|
| PARAMETER                       | SPECIFICATION  | RESULT            | UNIT | LOQ                      | NOTES |  |
| Mitragynine                     | Report Results | 0.277             | w/w% | 0.00020                  | N/A   |  |
| 7-Hydroxymitragynine            | Report Results | 0.000235          | w/w% | 0.00020                  | N/A   |  |
| Paynantheine                    | Report Results | 0.0299            | w/w% | 0.00020                  | N/A   |  |
| Speciogynine                    | Report Results | 0.0196            | w/w% | 0.00020                  | N/A   |  |
| Speciociliatine                 | Report Results | 0.00727           | w/w% | 0.00020                  | N/A   |  |
| Total Mitragyna Alkaloids       | Report Results | 0.334             | w/w% | 0.00020                  | N/A   |  |

| Elemental Impurities (ICP-MS) |               | Method Code: T301 |      | Tested: 21MAY2026   0948 |       |  |
|-------------------------------|---------------|-------------------|------|--------------------------|-------|--|
| PARAMETER                     | SPECIFICATION | RESULT            | UNIT | LOQ                      | NOTES |  |
| Arsenic                       | NMT 1.50      | <LOQ              | ug/g | 0.006                    | PASS  |  |
| Cadmium                       | NMT 0.50      | <LOQ              | ug/g | 0.002                    | PASS  |  |
| Mercury                       | NMT 0.20      | <LOQ              | ug/g | 0.002                    | PASS  |  |
| Lead                          | NMT 0.50      | 0.003             | ug/g | 0.002                    | PASS  |  |

| Residual Solvents: Class I (GC-MS) |               | Method Code: T201 |      | Tested: 20MAY2026   1920 |       |
|------------------------------------|---------------|-------------------|------|--------------------------|-------|
| 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                       | 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: 20MAY2026   1920 |       |
|-------------------------------------|---------------|-------------------|------|--------------------------|-------|
| PARAMETER                           | SPECIFICATION | RESULT            | UNIT | LOQ                      | NOTES |
| Methanol                            | NMT 3000      | <LOQ              | ug/g | 75                       | PASS  |
| Acetonitrile                        | NMT 410       | <LOQ              | ug/g | 41                       | PASS  |
| Dichloromethane                     | NMT 600       | <LOQ              | ug/g | 15                       | PASS  |
| 1,2-Dichloroethene, (E)             | NMT 1870      | <LOQ              | ug/g | 46.75                    | PASS  |
| 1,2-Dichloroethene, (Z)             | NMT 1870      | <LOQ              | ug/g | 46.75                    | PASS  |
| Tetrahydrofuran                     | NMT 720       | <LOQ              | ug/g | 18                       | PASS  |
| Cyclohexane                         | NMT 3880      | <LOQ              | ug/g | 97                       | PASS  |
| Methylcyclohexane                   | NMT 1180      | <LOQ              | ug/g | 29.5                     | PASS  |
| 1,4-Dioxane                         | NMT 380       | <LOQ              | ug/g | 38                       | PASS  |
| Toluene                             | NMT 890       | <LOQ              | ug/g | 22.25                    | PASS  |
| Chlorobenzene                       | NMT 360       | <LOQ              | ug/g | 9                        | PASS  |
| Ethylbenzene                        | NMT 2170      | <LOQ              | ug/g | 54.25                    | PASS  |
| o/p-Xylene                          | NMT 2170      | <LOQ              | ug/g | 54.25                    | PASS  |
| m-Xylene                            | NMT 2170      | <LOQ              | ug/g | 54.25                    | PASS  |
| Isopropylbenzene                    | NMT 70        | <LOQ              | ug/g | 1.75                     | PASS  |
| Hexane                              | NMT 290       | <LOQ              | ug/g | 7.25                     | PASS  |
| Nitromethane                        | NMT 50        | <LOQ              | ug/g | 1.25                     | PASS  |
| Chloroform                          | NMT 60        | <LOQ              | ug/g | 1.5                      | PASS  |
| 1,2-Dimethoxyethane                 | NMT 100       | <LOQ              | ug/g | 2.5                      | PASS  |
| Trichloroethene                     | NMT 80        | <LOQ              | ug/g | 2                        | PASS  |
| Pyridine                            | NMT 200       | <LOQ              | ug/g | 5                        | PASS  |
| 2-Hexanone                          | NMT 50        | <LOQ              | ug/g | 5                        | PASS  |
| Tetralin                            | NMT 100       | <LOQ              | ug/g | 2.5                      | PASS  |
| Total Xylenes                       | NMT 2170      | <LOQ              | ug/g | 54                       | PASS  |

| Residual Solvents: Class III (GC-MS) |               | Method Code: T201 |      | Tested: 20MAY2026   1920 |       |
|--------------------------------------|---------------|-------------------|------|--------------------------|-------|
| 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  |

| PARAMETER            | SPECIFICATION | RESULT | UNIT | LOQ | NOTES |
|----------------------|---------------|--------|------|-----|-------|
| 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  |
| Anisole              | NMT 5000      | <LOQ   | ug/g | 125 | PASS  |
| Dimethylsulfoxide    | NMT 5000      | <LOQ   | ug/g | 125 | PASS  |

| Microbial Examination     |                      | Method Code: T005 |       | Tested: 26MAY2026   1612 |       |
|---------------------------|----------------------|-------------------|-------|--------------------------|-------|
| PARAMETER                 | SPECIFICATION        | RESULT            | UNIT  | LOQ                      | NOTES |
| Total Aerobic Plate Count | NMT 10,000 CFU/g     | <LOQ              | CFU/g | 10 CFU/g                 | PASS  |
| Total Yeast and Mold      | NMT 1,000 CFU/g      | <LOQ              | CFU/g | 10 CFU/g                 | PASS  |
| Total Coliforms           | NMT 100 CFU/g        | <LOQ              | CFU/g | 10 CFU/g                 | PASS  |
| Escherichia coli          | Not Detected in 10 g | Not Detected      | N/A   | 1 CFU/10g                | PASS  |
| Salmonella spp.           | Not Detected in 10 g | Not Detected      | N/A   | 1 CFU/10g                | PASS  |

| Loss on Drying |                | Method Code: T505 |      | Tested: 21MAY2026   1115 |       |
|----------------|----------------|-------------------|------|--------------------------|-------|
| PARAMETER      | SPECIFICATION  | RESULT            | UNIT | LOQ                      | NOTES |
| Loss on Drying | Report Results | 95.9              | %    | 0.1                      | N/A   |

| 7-Hydroxymitragynine Limit (0.04%) |               | Method Code: 813 |      | Tested: 21MAY2026   1115 |       |
|------------------------------------|---------------|------------------|------|--------------------------|-------|
| PARAMETER                          | SPECIFICATION | RESULT           | UNIT | LOQ                      | NOTES |
| 7-Hydroxymitragynine               | NMT 400 PPM   | 57               | ppm  | 49                       | PASS  |

| Kavalactones (UHPLC-DAD) |                | Method Code: T104 |         | Tested: 21MAY2026   1951 |       |
|--------------------------|----------------|-------------------|---------|--------------------------|-------|
| PARAMETER                | SPECIFICATION  | RESULT            | UNIT    | LOQ                      | NOTES |
| Kavain                   | Report Results | 69.8              | mg/unit | 0.95                     | N/A   |
| Dihydrokavain            | Report Results | 57.1              | mg/unit | 0.95                     | N/A   |
| Methysticin              | Report Results | 21.0              | mg/unit | 0.95                     | N/A   |
| Dihydromethysticin       | Report Results | 20.3              | mg/unit | 0.95                     | N/A   |
| Yangonin                 | Report Results | 22.6              | mg/unit | 0.95                     | N/A   |
| Desmethoxyyangonin       | Report Results | 23.9              | mg/unit | 0.95                     | N/A   |
| Flavokawain A            | Report Results | 3.01              | mg/unit | 0.95                     | N/A   |
| Flavokawain B            | Report Results | 3.46              | mg/unit | 0.95                     | N/A   |
| Flavokawain C            | Report Results | <LOQ              | mg/unit | 0.95                     | N/A   |
| Total Kavalactones       | Report Results | 215               | mg/unit | 0.95                     | N/A   |

| Kavalactones (UHPLC-DAD) |                | Method Code: T104 |      | Tested: 21MAY2026   1951 |       |  |
|--------------------------|----------------|-------------------|------|--------------------------|-------|--|
| PARAMETER                | SPECIFICATION  | RESULT            | UNIT | LOQ                      | NOTES |  |
| Kavain                   | Report Results | 0.114             | w/w% | 0.0016                   | N/A   |  |
| Dihydrokavain            | Report Results | 0.0934            | w/w% | 0.0016                   | N/A   |  |
| Methysticin              | Report Results | 0.0344            | w/w% | 0.0016                   | N/A   |  |
| Dihydromethysticin       | Report Results | 0.0333            | w/w% | 0.0016                   | N/A   |  |
| Yangonin                 | Report Results | 0.0370            | w/w% | 0.0016                   | N/A   |  |
| Desmethoxyyangonin       | Report Results | 0.0391            | w/w% | 0.0016                   | N/A   |  |
| Flavokawain A            | Report Results | 0.00493           | w/w% | 0.0016                   | N/A   |  |
| Flavokawain B            | Report Results | 0.00567           | w/w% | 0.0016                   | N/A   |  |
| Flavokawain C            | Report Results | <LOQ              | w/w% | 0.0016                   | N/A   |  |
| Total Kavalactones       | Report Results | 0.351             | w/w% | 0.0016                   | N/A   |  |

| Unit Weight Analysis (Gravimetric) |                | Method Code: T503 |      | Tested: 21MAY2026   1442 |       |  |
|------------------------------------|----------------|-------------------|------|--------------------------|-------|--|
| PARAMETER                          | SPECIFICATION  | RESULT            | UNIT | RANGE                    | NOTES |  |
| Density                            | Report Results | 1.019             | g/mL | 0.5-1.5                  | N/A   |  |

## Additional Report Notes

T102 and T104 results, LOQ and unit converted from w/w% to mg/unit using a laboratory measured density and package specified fill volume. T813 results are reported on a dry-weight basis (DWB). Reported values converted from T102 results using the laboratory-measured loss on drying by T505 for each sample:  
DWB w/w% = (as-received w/w%) ÷ (1 – moisture%/100).

## Revision History

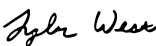
Report ID: a06847a9-b63a-4202-a0ab-51250ddafec1  
rev 00 - Initial release.

## 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: |  | Position:   | Laboratory Director |
| Name:      | Tyler West                                                                          | Department: | Management          |
|            |                                                                                     | Date:       | 26MAY2026           |