# Certificate of Analysis

Certificate ID: **132447** Received: **6/2/25**

Client Sample ID: **Mit Therapy Spearmint**

Lot Number: **NSBFR050401**

Matrix: **Kratom Powder-Ground Plant Material**

Scan QR Code for authenticity

**Mit Therapy**
**2623 S. Fry Street**
**Boise, ID 83709**

| Authorization: | Signature: | Date: |
|---|---|---|
| Andrew Aubin, Lab Director | | 6/6/2025 |

PJLA Testing
Accreditation
# 80585

The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

## *KR: Kratom Alkaloids [WI-10-44]*

*Analyst: AJA* *Test Date: 6/2/2025*

The client sample was analyzed for plant-based alkaloids by Liquid Chromatography (LC) with PDA detection. The collected data was compared to data collected for certified reference standard at a known concentrations. The presence or absence of all listed compounds were confirmed via UV spectral matching.

***132447-KR***

| Compound | CAS | Weight % | Concentration (mg/mL) |
|---|---|---|---|
| Mitragynine | 4098-40-2 | 1.08 | 10.8 |
| Speciociliatine | 14382-79-7 | 0.217 | 2.18 |
| Paynantheine | 4697-66-9 | 0.163 | 1.64 |
| Speciogynine | 4697-67-0 | 0.134 | 1.35 |
| 7-Hydroxy Mitragynine | 174418-82-7 | ND | ND |
| | Total | 1.59 | 16.0 |

ND – Not Detected at a level greater than the reporting limit (RL).

## *HM: Heavy Metal Analysis [WI-10-13]* *Analyst: ZDV* *Test Date: 6/5/2025*

This sample was analyzed by elemental analysis using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) for the identification of heavy metal constituents. External calibration curves for heavy metals were used for quantitation, with an additional internal reference standard. Resulting data was compared with a sample blank. This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

### *132447-HM*

| Symbol | Metal | Conc.[1] (mg/kg) | RL | Use Limits [3] (mg/kg) All | Use Limits [3] (mg/kg) Ingestion | Status |
|---|---|---|---|---|---|---|
| As | Arsenic | ND | 0.0500 | 0.200 | 1.50 | PASS |
| Cd | Cadmium | ND | 0.0500 | 0.200 | 0.500 | PASS |
| Hg | Mercury | ND | 0.0500 | 0.100 | 1.50 | PASS |
| Pb | Lead | ND | 0.0500 | 0.500 | 1.00 | PASS |

1) ND = None detected above the indicated Reporting Limit (RL)
2) Testing limits established by the Utah Agriculture and Food, Regulatory Services (R70), Kratom Product Registration and Labeling (R70-580), Authority and Purpose (R70-580-1) - Pursuant to Section 4-45-107, this rule establishes the requirements for labeling and registration of products made from and containing kratom. Nickel specification according to oral drug products per USP.

## *MB1: Microbiological Contaminants [WI-10-09]* *Analyst: SRD* *Test Date: 6/2/2025*

This sample was analyzed for microbiological contaminants using an automated Most Probable Number (MPN) methodology with cultured enrichments. This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

### *132447-MB1*

| Symbol | Analysis | Results | Units | Limits* | Status |
|---|---|---|---|---|---|
| AC | Total Aerobic Bacterial Count | <100 | CFU/g | 100,000 CFU/g | PASS |
| CC | Total Coliform Bacterial Count | <100 | CFU/g | 1,000 CFU/g | PASS |
| EB | Total Bile Tolerant Gram Negative Count | <100 | CFU/g | 1,000 CFU/g | PASS |
| YM | Total Yeast & Mold | <100 | CFU/g | 10,000 CFU/g | PASS |

*Testing limits established by the Utah Agriculture and Food, Regulatory Services (R70), Kratom Product Registration and Labeling (R70-580), Authority and Purpose (R70-580-1) - Pursuant to Section 4-45-107, this rule establishes the requirements for labeling and registration of products made from and containing kratom.

## *MB2: Pathogenic Bacterial Contaminants [WI-10-10]* *Analyst: AEH* *Test Date: 6/4/2025*

This sample was analyzed for pathogenic bacteria using an automated Enzyme Linked Fluorescent Assay (ELFA), based on a 100 g sample size, with 24-hour enrichment prior to analysis. This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety. Quality control checks are performed monthly by running both a positive and a negative control sample for each pathogen. Reports may not be reproduced except in their entirety

### *132447-MB2*

| Test ID | Analysis | Results | Units | Limits* | Status |
|---|---|---|---|---|---|
| 132447-U100-ECPT | E. coli (O157) | 0 CFU/100g | NA | Non Detected | PASS |
| 132447-U100-SPT | Salmonella | 0 CFU/100g | NA | Non Detected | PASS |

Note: Sample size used in testing was 100 grams.

## *VC: Analysis of Volatile Organic Compounds [WI-10-28]* *Analyst: KEM* *Test Date: 6/3/2025*

This sample was analyzed for residual solvents using Head-Space Gas Chromatography with Mass Spectrometric detection (HS-GC/MS). The collected data was compared to data collected for a reference standards at a known concentrations with an additional internal reference standard.

***132447-VC***

| Compound | CAS | Amount [1] | Limit [2] | RL | Status |
|---|---|---|---|---|---|
| Propane | 74-98-6 | ND | 1,000 ppm | 4 | PASS |
| Isobutane | 75-28-5 | ND | 1,000 ppm | 4 | PASS |
| Butane | 106-97-8 | ND | 1,000 ppm | 4 | PASS |
| Methanol | 67-56-1 | ND | 3,000 ppm | 100 | PASS |
| Pentane | 109-66-0 | ND | 5,000 ppm | 100 | PASS |
| Ethanol | 64-17-5 | ND | 5,000 ppm | 100 | PASS |
| Acetone | 67-64-1 | ND | 5,000 ppm | 100 | PASS |
| Isopropanol | 67-63-0 | ND | 5,000 ppm | 100 | PASS |
| Acetonitrile | 75-05-8 | ND | 410 ppm | 100 | PASS |
| Hexane | 110-54-3 | ND | 290 ppm | 100 | PASS |
| Heptane | 142-82-5 | ND | 5,000 ppm | 100 | PASS |

1) ND = Not detected at a level greater than the Reporting Limit (RL).
2) In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health for cannabis concentrates and extracts on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.
(*) For ethanol, as many formulations contain flavorings based on ethanol extracts of natural products, no status has been assigned.

**END OF REPORT**