# Certificate of Analysis



#### **Customer Information**

Client: Happy Hippo LLC

Attention: @happyhippo.com

**Address:** 2145 E Pine Ave

Meridian, ID 83642

Testing Facility

**Lab:** Cora Science, LLC

**Address** 8000 Anderson Square, STE 113

Austin, Texas 78757

Contact:



#### Sample Image(s)



#### Sample Information

Name: HH KRATOM EXTRACT TABLET 115 MG

**Lot Number:** BU0025030401 **Description:** Pressed Tablet

Condition: Good

Job ID: ISO04327

Sample ID: I11708

Received: 26JUN2025

Completed: 03JUL2025

Issued: 03JUL2025

### Test Results

Mitragyna Alkaloids (UHPLC-DAD)		Method Code: T102		Tested: 02JUL2025   0142	
PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Mitragynine	Report Results	119	mg/unit	0.015	N/A
7-Hydroxymitragynine	Report Results	0.241	mg/unit	0.015	N/A
Paynantheine	Report Results	0.603	mg/unit	0.015	N/A
Speciogynine	Report Results	0.268	mg/unit	0.015	N/A
Speciociliatine	Report Results	0.0423	mg/unit	0.015	N/A
Total Mitragyna Alkaloids	Report Results	120	mg/unit	0.015	N/A

Mitragyna Alkaloids (UHPLC-DAD)		Method Code	Method Code: T102		Tested: 02JUL2025   0142	
PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES	
Mitragynine	Report Results	23.5	w/w%	0.0029	N/A	

7-Hydroxymitragynine	Report Results	0.0474	w/w%	0.0029	N/A
Paynantheine	Report Results	0.119	w/w%	0.0029	N/A
Speciogynine	Report Results	0.0529	w/w%	0.0029	N/A
Speciociliatine	Report Results	0.00834	w/w%	0.0029	N/A
Total Mitragyna Alkaloids	Report Results	23.7	w/w%	0.0029	N/A

Residual Solvents: Class I (GC-MS) Method Code: T201 Tested: 03JUL2025 | 1158

PARAMETER	<b>SPECIFICATION</b>	RESULT	UNIT	LOQ	NOTES
1,1-Dichloroethene	NMT 8	<loq< td=""><td>ug/g</td><td>0.40</td><td>PASS</td></loq<>	ug/g	0.40	PASS
1,1,1-Trichloroethane	NMT 1500	<loq< td=""><td>ug/g</td><td>75</td><td>PASS</td></loq<>	ug/g	75	PASS
Tetrachloromethane	NMT 4	<loq< td=""><td>ug/g</td><td>0.20</td><td>PASS</td></loq<>	ug/g	0.20	PASS
Benzene	NMT 2	<loq< td=""><td>ug/g</td><td>0.10</td><td>PASS</td></loq<>	ug/g	0.10	PASS
1,2-Dichloroethane	NMT 5	<loq< td=""><td>ug/g</td><td>0.25</td><td>PASS</td></loq<>	ug/g	0.25	PASS

Residual Solvents: Class II (GC-MS) Method Code: T201 Tested: 03JUL2025 | 1158

PARAMETER	<b>SPECIFICATION</b>	RESULT	UNIT	LOQ	NOTES
1ethanol	NMT 3000	<loq< td=""><td>ug/g</td><td>150</td><td>PASS</td></loq<>	ug/g	150	PASS
cetonitrile	NMT 410	<loq< td=""><td>ug/g</td><td>41</td><td>PASS</td></loq<>	ug/g	41	PASS
Dichloromethane	NMT 600	<loq< td=""><td>ug/g</td><td>15</td><td>PASS</td></loq<>	ug/g	15	PASS
,2-Dichloroethene, (E)	NMT 1870	<loq< td=""><td>ug/g</td><td>47</td><td>PASS</td></loq<>	ug/g	47	PASS
,2-Dichloroethene, (Z)	NMT 1870	<loq< td=""><td>ug/g</td><td>47</td><td>PASS</td></loq<>	ug/g	47	PASS
etrahydrofuran	NMT 720	<loq< td=""><td>ug/g</td><td>18</td><td>PASS</td></loq<>	ug/g	18	PASS
Cyclohexane	NMT 3880	<loq< td=""><td>ug/g</td><td>97</td><td>PASS</td></loq<>	ug/g	97	PASS
lethylcyclohexane	NMT 1180	<loq< td=""><td>ug/g</td><td>30</td><td>PASS</td></loq<>	ug/g	30	PASS
,4-Dioxane	NMT 380	<loq< td=""><td>ug/g</td><td>38</td><td>PASS</td></loq<>	ug/g	38	PASS
oluene	NMT 890	<loq< td=""><td>ug/g</td><td>22</td><td>PASS</td></loq<>	ug/g	22	PASS
Chlorobenzene	NMT 360	<loq< td=""><td>ug/g</td><td>9.0</td><td>PASS</td></loq<>	ug/g	9.0	PASS
thylbenzene	NMT 2170	<loq< td=""><td>ug/g</td><td>54</td><td>PASS</td></loq<>	ug/g	54	PASS
/p-Xylene	NMT 2170	<loq< td=""><td>ug/g</td><td>54</td><td>PASS</td></loq<>	ug/g	54	PASS
n-Xylene	NMT 2170	<loq< td=""><td>ug/g</td><td>54</td><td>PASS</td></loq<>	ug/g	54	PASS
sopropylbenzene	NMT 70	<loq< td=""><td>ug/g</td><td>1.8</td><td>PASS</td></loq<>	ug/g	1.8	PASS
lexane	NMT 290	<loq< td=""><td>ug/g</td><td>7.3</td><td>PASS</td></loq<>	ug/g	7.3	PASS
litromethane	NMT 50	<loq< td=""><td>ug/g</td><td>1.3</td><td>PASS</td></loq<>	ug/g	1.3	PASS
Chloroform	NMT 60	<loq< td=""><td>ug/g</td><td>1.5</td><td>PASS</td></loq<>	ug/g	1.5	PASS
,2-Dimethoxyethane	NMT 100	<loq< td=""><td>ug/g</td><td>2.5</td><td>PASS</td></loq<>	ug/g	2.5	PASS
richloroethene	NMT 80	<loq< td=""><td>ug/g</td><td>2.0</td><td>PASS</td></loq<>	ug/g	2.0	PASS
yridine	NMT 200	<loq< td=""><td>ug/g</td><td>5.0</td><td>PASS</td></loq<>	ug/g	5.0	PASS
-Hexanone	NMT 50	<loq< td=""><td>ug/g</td><td>5.0</td><td>PASS</td></loq<>	ug/g	5.0	PASS
etralin	NMT 100	<loq< td=""><td>ug/g</td><td>2.5</td><td>PASS</td></loq<>	ug/g	2.5	PASS

Residual Solvents: Class III (GC-MS) Method Code: T201 Tested: 03JUL2025 | 1158

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

**Elemental Impurities (ICP-MS)** 

Method Code: T301 Tested: 01JUL2025 | 1422

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Arsenic	NMT 1.50	0.011	ug/g	0.006	PASS
Cadmium	NMT 0.50	0.049	ug/g	0.002	PASS
Mercury	NMT 0.20	<loq< td=""><td>ug/g</td><td>0.002</td><td>PASS</td></loq<>	ug/g	0.002	PASS
Lead	NMT 0.50	0.030	ug/g	0.002	PASS

**Method Code: T005 Microbiological Examination** Tested: 30JUN2025 | 1627

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Total Aerobic Plate Count	NMT 10,000,000 CFU/g	<loq< td=""><td>CFU/g</td><td>20 CFU/g</td><td>PASS</td></loq<>	CFU/g	20 CFU/g	PASS
Total Yeast and Mold	NMT 100,000 CFU/g	<loq< td=""><td>CFU/g</td><td>20 CFU/g</td><td>PASS</td></loq<>	CFU/g	20 CFU/g	PASS
Total Coliforms	NMT 10,000 CFU/g	<loq< td=""><td>CFU/g</td><td>20 CFU/g</td><td>PASS</td></loq<>	CFU/g	20 CFU/g	PASS
Escherichia coli	Not Detected in 10 g	Not Detected	N/A	1 CFU/10g	PASS
Salmonella spp.	Not Detected in 25 g	Not Detected	N/A	1 CFU/25g	PASS

# Additional Report Notes

T102 result, LOQ and unit converted from w/w% to mg/unit using a laboratory measured unit weight of 0.507 grams.

# **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

**Position:** 

Laboratory Director

#### **Authorization**

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

John West Signature: **Department:** Management

03JUL2025 Date: Tyler West Name: