## Certificate of Analysis



**Customer Information** 

Client: CWL Brands
Attention: (208) 563-5192

**Address:** 11193 W Emerald St, STE 140

Boise, ID 83713

**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: Berry Bliss Lot Number: TTBB 2411

**Description:** Liquid botanical extract

Condition: Good

Job ID: ISO01678

Sample ID: I03441

Received: 26JAN2024

Completed: 05FEB2024

Issued: 06FEB2024

### Test Results

Kavalactones (UHPLC-DAD)		Method Code: T104		Tested: 2	Tested: 26JAN2024   1848	
PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES	
Kavain	Report Results	0.900	mg/mL	0.03	N/A	
Dihydrokavain	Report Results	1.62	mg/mL	0.03	N/A	
Methysticin	Report Results	0.314	mg/mL	0.03	N/A	
Dihydromethysticin	Report Results	0.345	mg/mL	0.03	N/A	
Yangonin	Report Results	0.333	mg/mL	0.03	N/A	

Desmethoxyyangonin Report Results 0.516 mg/mL 0.03 N/A Flavokawain A Report Results 0.068 mg/mL 0.03 N/A Flavokawain B Report Results <LOQ mg/mL 0.03 N/A Flavokawain C Report Results <LOQ mg/mL 0.03 N/A Report Results Total Kavalactones 4.03 mg/mL 0.03 N/A

Kavalactones (UHPLC-DAD) Method Code: T104 Tested: 26JAN2024 | 1848

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PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Kavain	Report Results	0.088	w/w%	0.003	N/A
Dihydrokavain	Report Results	0.158	w/w%	0.003	N/A
Methysticin	Report Results	0.031	w/w%	0.003	N/A
Dihydromethysticin	Report Results	0.034	w/w%	0.003	N/A
Yangonin	Report Results	0.032	w/w%	0.003	N/A
Desmethoxyyangonin	Report Results	0.050	w/w%	0.003	N/A
Flavokawain A	Report Results	0.007	w/w%	0.003	N/A
Flavokawain B	Report Results	<loq< td=""><td>w/w%</td><td>0.003</td><td>N/A</td></loq<>	w/w%	0.003	N/A
Flavokawain C	Report Results	<loq< td=""><td>w/w%</td><td>0.003</td><td>N/A</td></loq<>	w/w%	0.003	N/A
Total Kavalactones	Report Results	0.392	w/w%	0.003	N/A

Mitragyna Alkaloids (UHPLC-DAD)

**Method Code: T102** 

Tested: 27JAN2024 | 2102

PARAMETER	<b>SPECIFICATION</b>	RESULT	UNIT	LOQ	NOTES
Mitragynine	Report Results	0.169	w/w%	0.003	N/A
7-Hydroxymitragynine	Report Results	<loq< td=""><td>w/w%</td><td>0.001</td><td>N/A</td></loq<>	w/w%	0.001	N/A
Paynantheine	Report Results	0.025	w/w%	0.003	N/A
Speciogynine	Report Results	0.020	w/w%	0.003	N/A
Speciociliatine	Report Results	0.050	w/w%	0.003	N/A
Total Mitragyna Alkaloids	Report Results	0.265	w/w%	0.003	N/A

Mitr	agyna Alkaloids (UHPLC-DAD)		Method Code: 1102 lested		lested: 27	JAN2024   2102
	PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Mitragynine	Report Results	1.74	mg/mL	0.03	N/A
7-Hydroxymitragynine	Report Results	<loq< td=""><td>mg/mL</td><td>0.01</td><td>N/A</td></loq<>	mg/mL	0.01	N/A
Paynantheine	Report Results	0.259	mg/mL	0.03	N/A
Speciogynine	Report Results	0.209	mg/mL	0.03	N/A
Speciociliatine	Report Results	0.514	mg/mL	0.03	N/A
Total Mitragyna Alkaloids	Report Results	2.72	mg/mL	0.03	N/A

Elemental Impurities (ICP-MS) Method Code: T301 Tested: 04FEB2024 | 1437

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Arsenic	NMT 1.5	<loq< td=""><td>ug/g</td><td>0.048</td><td>PASS</td></loq<>	ug/g	0.048	PASS
Cadmium	NMT 0.5	<loq< td=""><td>ug/g</td><td>0.0096</td><td>PASS</td></loq<>	ug/g	0.0096	PASS
Lead	NMT 0.5	<loq< td=""><td>ug/g</td><td>0.0096</td><td>PASS</td></loq<>	ug/g	0.0096	PASS
Mercury	NMT 3.0	<loq< td=""><td>ug/g</td><td>0.0096</td><td>PASS</td></loq<>	ug/g	0.0096	PASS

Microbiological Examination Method Code: T005 Tested: 31JAN2024 | 1210

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Total Aerobic Plate Count	10,000,000 CFU/gram	Not Detected	CFU/gram	10 CFU/gram	PASS
Total Yeast & Mold	100,000 CFU/gram	Not Detected	CFU/gram	10 CFU/gram	PASS
Total Coliforms	10,000 CFU/gram	Not Detected	CFU/gram	10 CFU/gram	PASS
Escherichia coli	Not Detected in 10 grams	Not Detected	N/A	1 CFU/10 grams	PASS
Staphylococcus aureus	Not Detected in 10 grams	Not Detected	N/A	1 CFU/10 grams	PASS
Salmonella	Not Detected in 25 grams	Not Detected	N/A	1 CFU/25 grams	PASS

Residual Solvents (GC-MS) Method Code: T201 Tested: 05FEB2024 | 2247

PARAMETER	Order ID: ISO01678 - Sample Id: 103441 - Re SPECIFICATION	RESULT	UNIT	LOQ	NOTES
1,1-Dichloroethene	NMT 8	<loq< th=""><th>ug/g</th><th>0.40</th><th>PASS</th></loq<>	ug/g	0.40	PASS
1,1,1-Trichloroethane	NMT 1500	<loq< td=""><td>ug/g</td><td>75.0</td><td>PASS</td></loq<>	ug/g	75.0	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 <loq< td=""><td>ug/g</td><td>0.20</td><td>PASS</td></loq<></loq 	ug/g	0.20	PASS
1,2-Dichloroethane	NMT 5	<loq <loq< td=""><td>ug/g ug/g</td><td>0.10</td><td>PASS</td></loq<></loq 	ug/g ug/g	0.10	PASS
Methanol	NMT 3000	<loq <loq< td=""><td></td><td>150</td><td>PASS</td></loq<></loq 		150	PASS
Acetonitrile	NMT 410	<l0q <l0q< td=""><td>ug/g</td><td>21</td><td>PASS</td></l0q<></l0q 	ug/g	21	PASS
Dichloromethane	NMT 600	<loq <loq< td=""><td>ug/g</td><td>30</td><td>PASS</td></loq<></loq 	ug/g	30	PASS
1,2-Dichloroethene, (E)	NMT 1870	<l0q <l0q< td=""><td>ug/g</td><td>94</td><td>PASS</td></l0q<></l0q 	ug/g	94	PASS
	NMT 1870	<l0q <l0q< td=""><td>ug/g</td><td>94</td><td>PASS</td></l0q<></l0q 	ug/g	94	PASS
1,2-Dichloroethene, (Z)	NMT 720		ug/g	36	PASS
Tetrahydrofuran	NMT 3880	<loq <loq< td=""><td>ug/g</td><td>194</td><td>PASS</td></loq<></loq 	ug/g	194	PASS
Cyclohexane		_	ug/g		
Methylcyclohexane	NMT 1180	<l0q< td=""><td>ug/g</td><td>59 10</td><td>PASS</td></l0q<>	ug/g	59 10	PASS
1,4-Dioxane	NMT 380	<l0q< td=""><td>ug/g</td><td>19 45</td><td>PASS</td></l0q<>	ug/g	19 45	PASS
Toluene	NMT 890	<l0q< td=""><td>ug/g</td><td>45</td><td>PASS</td></l0q<>	ug/g	45	PASS
Chlorobenzene	NMT 360	<l0q< td=""><td>ug/g</td><td>18</td><td>PASS</td></l0q<>	ug/g	18	PASS
Ethylbenzene	NMT 2170	<l0q< td=""><td>ug/g</td><td>109</td><td>PASS</td></l0q<>	ug/g	109	PASS
o/p-Xylene	NMT 2170	<loq< td=""><td>ug/g</td><td>109</td><td>PASS</td></loq<>	ug/g	109	PASS
m-Xylene	NMT 2170	<loq< td=""><td>ug/g</td><td>109</td><td>PASS</td></loq<>	ug/g	109	PASS
Isopropylbenzene	NMT 70	<loq< td=""><td>ug/g</td><td>3.5</td><td>PASS</td></loq<>	ug/g	3.5	PASS
Hexane	NMT 290	<loq< td=""><td>ug/g</td><td>15</td><td>PASS</td></loq<>	ug/g	15	PASS
Nitromethane	NMT 50	<loq< td=""><td>ug/g ,</td><td>2.5</td><td>PASS</td></loq<>	ug/g ,	2.5	PASS
Chloroform	NMT 60	<loq< td=""><td>ug/g ,</td><td>3.0</td><td>PASS</td></loq<>	ug/g ,	3.0	PASS
1,2-Dimethoxyethane	NMT 100	<loq< td=""><td>ug/g ,</td><td>5.0</td><td>PASS</td></loq<>	ug/g ,	5.0	PASS
Trichloroethene	NMT 80	<loq< td=""><td>ug/g ,</td><td>4.0</td><td>PASS</td></loq<>	ug/g ,	4.0	PASS
Pyridine	NMT 200	<loq< td=""><td>ug/g</td><td>10</td><td>PASS</td></loq<>	ug/g	10	PASS
2-Hexanone	NMT 50	<loq< td=""><td>ug/g</td><td>2.5</td><td>PASS</td></loq<>	ug/g	2.5	PASS
Tetralin	NMT 100	<loq< td=""><td>ug/g</td><td>5.0</td><td>PASS</td></loq<>	ug/g	5.0	PASS
Pentane	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
Ethanol	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
Diethyl Ether	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
Acetone	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
Ethyl Formate	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
Isopropanol	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
Methyl Acetate	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
Methyl tert-Butyl Ether	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
1-Propanol	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
2-Butanone	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
Ethyl Acetate	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
2-Butanol	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
2-Methyl-1-Propanol	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
Isopropyl Acetate	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
Heptane	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
1-Butanol	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
Propyl Acetate	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
4-Methyl-2-Pentanone	NMT 5000	<loq< td=""><td>ug/g ,</td><td>250</td><td>PASS</td></loq<>	ug/g ,	250	PASS
Isoamyl Alcohol	NMT 5000	<loq< td=""><td>ug/g ,</td><td>250</td><td>PASS</td></loq<>	ug/g ,	250	PASS
Isobutyl Acetate	NMT 5000	<loq< td=""><td>ug/g ,</td><td>250</td><td>PASS</td></loq<>	ug/g ,	250	PASS
1-Pentanol	NMT 5000	<loq< td=""><td>ug/g ,</td><td>250</td><td>PASS</td></loq<>	ug/g ,	250	PASS
Butyl Acetate	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS
Dimethylsulfoxide	NMT 5000	<loq< td=""><td>ug/g ,</td><td>250</td><td>PASS</td></loq<>	ug/g ,	250	PASS
Anisole	NMT 5000	<loq< td=""><td>ug/g</td><td>250</td><td>PASS</td></loq<>	ug/g	250	PASS

# Additional Report Notes

Work Order ID: ISO01678 - Sample Id: I03441 - Received Date: 26JAN2024 - Issued Date: 06FEB2024 - Page: 4

T102 and T104 result, LOQ and unit converted from w/w% to mg/mL using a laboratory measured density of 1.027 g/mL. T301 performed by a registered outsourcing facility.

### **Revision History**

rev 00 - Initial release.

rev 01 - Added T005, T201, and T301 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: Position: Laboratory Director

Name: Tyler West Department: Management 06FEB2024