



# Certificate of Analysis

## Customer Information

**Client:** Steding and Sons Mercantile  
**Attention:** (737) 895-2303  
**Address:** 1501 Panther Loop #7A  
 Pflugerville, TX 78660

## 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:** Lazy Lemonade  
**Lot Number:** SSLM00100  
**Description:** Ready-to-drink beverage  
**Condition:** Good  
**Job ID:** ISO05537  
**Sample ID:** I15372  
**Received:** 14NOV2025  
**Completed:** 24NOV2025  
**Issued:** 24NOV2025

## Test Results

### Mitragyna Alkaloids (UHPLC-DAD)

Method Code: T102

Tested: 21NOV2025 | 2347

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Mitragynine	Report Results	51.9	mg/unit	0.27	N/A
7-Hydroxymitragynine	Report Results	0.163	mg/unit	0.036	N/A
Paynantheine	Report Results	0.456	mg/unit	0.27	N/A
Speciogynine	Report Results	<LOQ	mg/unit	0.27	N/A
Speciociliatine	Report Results	<LOQ	mg/unit	0.27	N/A
Total Mitragyna Alkaloids	Report Results	52.6	mg/unit	0.27	N/A

### Mitragyna Alkaloids (UHPLC-DAD)

Method Code: T102

Tested: 21NOV2025 | 2347

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Mitragynine	Report Results	0.0144	w/w%	0.000075	N/A
7-Hydroxymitragynine	Report Results	0.000045	w/w%	0.0000100	N/A
Paynantheine	Report Results	0.000127	w/w%	0.000075	N/A
Speciogynine	Report Results	<LOQ	w/w%	0.000075	N/A
Speciociliatine	Report Results	<LOQ	w/w%	0.000075	N/A
Total Mitragyna Alkaloids	Report Results	0.0146	w/w%	0.000075	N/A

### Loss on Drying

Method Code: T505

Tested: 19NOV2025 | 1314

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Loss on Drying	Report Results	97.4	%	0.1	N/A

### Elemental Impurities (ICP-MS)

Method Code: T301

Tested: 18NOV2025 | 1409

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Arsenic	NMT 2.00	<LOQ	ug/g	0.006	PASS

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Cadmium	NMT 0.82	0.023	ug/g	0.002	PASS
Mercury	NMT 0.40	<LOQ	ug/g	0.002	PASS
Lead	NMT 1.20	<LOQ	ug/g	0.002	PASS

**Residual Solvents: Class I (GC-MS)**

Method Code: T201

Tested: 18NOV2025 | 2223

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: 18NOV2025 | 2223

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	47	PASS
1,2-Dichloroethene, (Z)	NMT 1870	<LOQ	ug/g	47	PASS
Tetrahydrofuran	NMT 720	<LOQ	ug/g	18	PASS
Cyclohexane	NMT 3880	<LOQ	ug/g	97	PASS
Methylcyclohexane	NMT 1180	<LOQ	ug/g	30	PASS
1,4-Dioxane	NMT 380	<LOQ	ug/g	38	PASS
Toluene	NMT 890	<LOQ	ug/g	22	PASS
Chlorobenzene	NMT 360	<LOQ	ug/g	9.0	PASS
Ethylbenzene	NMT 2170	<LOQ	ug/g	54	PASS
o/p-Xylene	NMT 2170	<LOQ	ug/g	54	PASS
m-Xylene	NMT 2170	<LOQ	ug/g	54	PASS
Isopropylbenzene	NMT 70	<LOQ	ug/g	1.8	PASS
Hexane	NMT 290	<LOQ	ug/g	7.3	PASS
Nitromethane	NMT 50	<LOQ	ug/g	1.3	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	2.0	PASS
Pyridine	NMT 200	<LOQ	ug/g	5.0	PASS
2-Hexanone	NMT 50	<LOQ	ug/g	5.0	PASS
Tetralin	NMT 100	<LOQ	ug/g	2.5	PASS

**Residual Solvents: Class III (GC-MS)**

Method Code: T201

Tested: 18NOV2025 | 2223

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

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

**Pesticides (GC-MS/MS)**

**Method Code: T401**

**Tested: 19NOV2025 | 2000**

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Acephate	NMT 0.1	ND	mg/Kg	0.01	PASS
Azinphos-ethyl	NMT 0.1	ND	mg/Kg	0.01	PASS
Azinphos-methyl	NMT 1	ND	mg/Kg	0.01	PASS
Bromophos-ethyl	NMT 0.05	ND	mg/Kg	0.01	PASS
Bromophos-methyl	NMT 0.05	ND	mg/Kg	0.01	PASS
Chlorfenvinphos	NMT 0.5	ND	mg/Kg	0.01	PASS
Deltamethrin	NMT 0.5	ND	mg/Kg	0.01	PASS
Diazinon	NMT 0.5	ND	mg/Kg	0.01	PASS
Dichlofluanid	NMT 0.1	ND	mg/Kg	0.01	PASS
Dichlorvos	NMT 1	ND	mg/Kg	0.02	PASS
Dimethoate (and Omethoate, sum)	NMT 0.1	ND	mg/Kg	0.01	PASS
Omethaote	Report Results	ND	mg/Kg	0.01	N/A
Dithiocarbamates (sum, as CS2)	NMT 2	ND	mg/Kg	0.10	PASS
Dithiocarbamate, manganese	Report Results	ND	mg/Kg	0.05	N/A
Dithiocarbamate, zinc	Report Results	ND	mg/Kg	0.05	N/A
Ethion	NMT 2	ND	mg/Kg	0.01	PASS
Etrimphos	NMT 0.05	ND	mg/Kg	0.01	PASS
Fenclorphos	NMT 0.1	ND	mg/Kg	0.02	PASS
Fenclorphos oxon	Report Results	ND	mg/Kg	0.01	N/A
Fenitrothion	NMT 0.5	ND	mg/Kg	0.01	PASS
Fenpropathrin	NMT 0.03	ND	mg/Kg	0.01	PASS
Fensulfothions (sum)	NMT 0.05	ND	mg/Kg	0.04	PASS
Fensulfothion-oxon	Report Results	ND	mg/Kg	0.01	N/A
Fensulfothion-oxonsulfone	Report Results	ND	mg/Kg	0.01	N/A

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Fensulfothion-sulfone	Report Results	ND	mg/Kg	0.01	N/A
Fenthions (sum)	NMT 0.05	ND	mg/Kg	0.02	PASS
Fenthion oxon	Report Results	ND	mg/Kg	0.02	N/A
Fenthion oxonsulfone	Report Results	ND	mg/Kg	0.02	N/A
Fenthion oxonsulfoxide	Report Results	ND	mg/Kg	0.02	N/A
Fenthion sulfone	Report Results	ND	mg/Kg	0.02	N/A
Fenthion sulfoxide	Report Results	ND	mg/Kg	0.02	N/A
Flucythrinate	NMT 0.05	ND	mg/Kg	0.01	PASS
Fluvalinate	NMT 0.05	ND	mg/Kg	0.01	PASS
Fonophos	NMT 0.05	ND	mg/Kg	0.01	PASS
Malathion (and oxon, sum)	NMT 1	ND	mg/Kg	0.02	PASS
Malathion oxon	Report Results	ND	mg/Kg	0.01	N/A
Mecarbam	NMT 0.05	ND	mg/Kg	0.01	PASS
Methacriphos	NMT 0.05	ND	mg/Kg	0.01	PASS
Methamidophos	NMT 0.05	ND	mg/Kg	0.01	PASS
Methadathion	NMT 0.2	ND	mg/Kg	0.01	PASS
Monocrotophos	NMT 0.1	ND	mg/Kg	0.01	PASS
Parathion-ethyl (and oxon, sum)	NMT 0.5	ND	mg/Kg	0.02	PASS
Paraoxon ethyl	Report Results	ND	mg/Kg	0.01	N/A
Parathion-methyl (and oxon, sum)	NMT 0.2	ND	mg/Kg	0.02	PASS
Paraoxon methyl	Report Results	ND	mg/Kg	0.01	N/A
Pendimethalin	NMT 0.1	ND	mg/Kg	0.01	PASS
Phosalone	NMT 0.1	ND	mg/Kg	0.01	PASS
Pirimiphos ethyl	NMT 0.05	ND	mg/Kg	0.01	PASS
Pirimphos methyl (and N-desethyl-, sum)	NMT 4	ND	mg/Kg	0.03	PASS
N-desethylpirimiphos methyl	Report Results	ND	mg/Kg	0.02	N/A
Procymidone	NMT 0.1	ND	mg/Kg	0.01	PASS
Profenofos	NMT 0.1	ND	mg/Kg	0.01	PASS
Prothiophos	NMT 0.05	ND	mg/Kg	0.01	PASS
Pyrethrum (sum of following six)	NMT 3	ND	mg/Kg	0.05	PASS
Cinerin I	Report Results	ND	mg/Kg	0.05	N/A
Cinerin II	Report Results	ND	mg/Kg	0.05	N/A
Jasmoline I	Report Results	ND	mg/Kg	0.05	N/A
Jasmoline II	Report Results	ND	mg/Kg	0.05	N/A
Pyrethrin I	Report Results	ND	mg/Kg	0.05	N/A
Pyrethrin II	Report Results	ND	mg/Kg	0.05	N/A
Quinalphos	NMT 0.05	ND	mg/Kg	0.01	PASS
Tetradifon	NMT 0.3	ND	mg/Kg	0.01	PASS
Vinclozolin	NMT 0.4	ND	mg/Kg	0.01	PASS
Aldrin (and Dieldrin, sum)	NMT 0.05	ND	mg/Kg	0.02	PASS
Dieldrin	Report Results	ND	mg/Kg	0.01	N/A
Alachlor	NMT 0.05	ND	mg/Kg	0.01	PASS
Bromopropylate	NMT 3	ND	mg/Kg	0.01	PASS
Chlordanes (sum)	NMT 0.05	ND	mg/Kg	0.02	PASS
cis-Chlordane	Report Results	ND	mg/Kg	0.01	N/A
trans-Chlordane	Report Results	ND	mg/Kg	0.01	N/A

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
oxy-Chlordane	Report Results	ND	mg/Kg	0.02	N/A
Chlorpyrifos-ethyl	NMT 0.2	ND	mg/Kg	0.01	PASS
Chlorpyrifos-methyl	NMT 0.1	ND	mg/Kg	0.01	PASS
Chlorthal-dimethyl	NMT 0.01	ND	mg/Kg	0.01	PASS
Cyfluthrin	NMT 0.1	ND	mg/Kg	0.02	PASS
lambda-Cyhalothrin	NMT 1	ND	mg/Kg	0.01	PASS
Cypermethrins	NMT 1	ND	mg/Kg	0.02	PASS
DDT (sum of DDT, DDE, DDD)	NMT 1	ND	mg/Kg	0.01	PASS
o,p-DDT	Report Results	ND	mg/Kg	0.01	N/A
p,p-DDT	Report Results	ND	mg/Kg	0.01	N/A
o,p-DDE	Report Results	ND	mg/Kg	0.01	N/A
p,p-DDE	Report Results	ND	mg/Kg	0.01	N/A
o,p-DDD	Report Results	ND	mg/Kg	0.01	N/A
p,p-DDD	Report Results	ND	mg/Kg	0.01	N/A
Dicofol	NMT 0.5	ND	mg/Kg	0.01	PASS
Endosulfans	NMT 3	ND	mg/Kg	0.01	PASS
Endosulfan I	Report Results	ND	mg/Kg	0.01	N/A
Endosulfan II	Report Results	ND	mg/Kg	0.01	N/A
Endosulfan sulfate	Report Results	ND	mg/Kg	0.01	N/A
Endrin	NMT 0.05	ND	mg/Kg	0.01	PASS
Fenvalerate (and esfen-, sum)	NMT 1.5	ND	mg/Kg	0.02	PASS
Esfenvalerate	Report Results	ND	mg/Kg	0.02	N/A
Heptachlor (and epoxide, sum)	NMT 0.05	ND	mg/Kg	0.02	PASS
Heptachlor epoxide (cis/trans)	Report Results	ND	mg/Kg	0.01	N/A
Hexachlorobenzene	NMT 0.1	ND	mg/Kg	0.01	PASS
Hexachlorohexanes (sum)	NMT 0.3	ND	mg/Kg	0.01	PASS
alpha-Hexachlorocyclohexane	Report Results	ND	mg/Kg	0.01	N/A
beta-Hexachlorocyclohexane	Report Results	ND	mg/Kg	0.01	N/A
delta-Hexachlorocyclohexane	Report Results	ND	mg/Kg	0.01	N/A
Lindane	NMT 0.6	ND	mg/Kg	0.01	PASS
Methoxychlor	NMT 0.05	ND	mg/Kg	0.01	PASS
Mirex	NMT 0.01	ND	mg/Kg	0.01	PASS
Pentachloroanisole	NMT 0.01	ND	mg/Kg	0.01	PASS
Permethrins (sum)	NMT 1	ND	mg/Kg	0.01	PASS
cis-Permethrin	Report Results	ND	mg/Kg	0.01	N/A
trans-Permethrin	Report Results	ND	mg/Kg	0.01	N/A
Piperonyl butoxide	NMT 3	ND	mg/Kg	0.01	PASS
Quintozene (sum of following two)	NMT 1	ND	mg/Kg	0.09	PASS
Pentachloroaniline	Report Results	ND	mg/Kg	0.02	N/A
Methyl pentachlorophenyl sulfide	Report Results	ND	mg/Kg	0.05	N/A
Tecnazene	NMT 0.05	ND	mg/Kg	0.01	PASS
S-421	NMT 0.02	ND	mg/Kg	0.01	PASS

**Microbiological Examination**

Method Code: T005

Tested: 17NOV2025 | 1455

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Total Aerobic Plate Count	NMT 10,000 CFU/g	20	CFU/g	10 CFU/g	PASS

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 Yeast and Mold	NMT 1,000 CFU/g	<LOQ	CFU/g	10 CFU/g	PASS
Salmonella spp.	Not Detected in 1 g	Not Detected	N/A	1 CFU/1g	PASS
Shiga-toxin producing E. coli	Not Detected in 1 g	Not Detected	N/A	1 CFU/1g	PASS

**Kavalactones (UHPLC-DAD)**

Method Code: T104

Tested: 23NOV2025 | 0413

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Kavain	Report Results	0.0135	w/w%	0.00008	N/A
Dihydrokavain	Report Results	0.0294	w/w%	0.00008	N/A
Methysticin	Report Results	0.00958	w/w%	0.00008	N/A
Dihydromethysticin	Report Results	0.0152	w/w%	0.00008	N/A
Yangonin	Report Results	0.00693	w/w%	0.00008	N/A
Desmethoxyyangonin	Report Results	0.00597	w/w%	0.00008	N/A
Flavokawain A	Report Results	0.000705	w/w%	0.00008	N/A
Flavokawain B	Report Results	<LOQ	w/w%	0.00008	N/A
Flavokawain C	Report Results	<LOQ	w/w%	0.00008	N/A
Total Kavalactones	Report Results	0.0806	w/w%	0.00008	N/A

**Kavalactones (UHPLC-DAD)**

Method Code: T104

Tested: 23NOV2025 | 0413

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Kavain	Report Results	48.5	mg/unit	0.29	N/A
Dihydrokavain	Report Results	106	mg/unit	0.29	N/A
Methysticin	Report Results	34.5	mg/unit	0.29	N/A
Dihydromethysticin	Report Results	54.8	mg/unit	0.29	N/A
Yangonin	Report Results	24.9	mg/unit	0.29	N/A
Desmethoxyyangonin	Report Results	21.5	mg/unit	0.29	N/A
Flavokawain A	Report Results	2.53	mg/unit	0.29	N/A
Flavokawain B	Report Results	<LOQ	mg/unit	0.29	N/A
Flavokawain C	Report Results	<LOQ	mg/unit	0.29	N/A
Total Kavalactones	Report Results	290	mg/unit	0.29	N/A

**7-Hydroxymitragynine Limit (0.04%)**

Method Code: 813

Tested: 21NOV2025 | 2347

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
7-Hydroxymitragynine	NMT 400 PPM	17	ppm	4	PASS

**Foreign Matter Inspection**

Method Code: T501

Tested: 24NOV2025 | 1533

PARAMETER	SPECIFICATION	RESULT	UNIT	LOQ	NOTES
Foreign Matter	NMT 3%	<LOQ	%	0.01	PASS

## Additional Report Notes

T102 result, LOQ and unit converted from w/w% to mg/unit using a laboratory measured density of 1.013 g/mL and package specified fill volume of 355.0 mL. 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

---

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*

**Position:**

Laboratory Director

**Department:**

Management

**Name:**

Tyler West

**Date:**

24NOV2025