Columbia LABORATORIES
A Tentamus Company

12423 NE Whitaker Way
Portland, OR 97230
503-254-1794

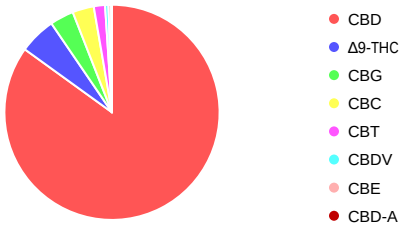
Report Number: 21-013080/D003.R000
Report Date: 11/11/2021
ORELAP#: OR100028
Purchase Order:
Received: 11/05/21 11:28

Customer: Hempsi
Product identity: H.H. Live Oil Tincture #11042101
Client/Metrc ID: .
Laboratory ID: 21-013080-0002

Summary

Potency:

Analyte	Result (%)
CBD	2.97
Δ9-THC	0.193
CBG†	0.125
CBC	0.112
CBT†	0.0591
CBDV†	0.0176
CBE†	0.0141
CBD-A	0.00423



CBD-Total 2.97%

THC-Total 0.193%

(Reported in percent of total sample)

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

All analytes passing and less than LOQ.

Terpenes:

Analyte	Percent by weight	Percent of Total	Analyte	Percent by weight	Percent of Total
ß-Myrcene†	0.113	35.20%	farnesene†	0.0555	17.29%
(R)-(+)-Limonene†	0.0414	12.90%	ß-Caryophyllene†	0.0398	12.40%
a-pinene†	0.0367	11.43%	(-)-Guaiol†	0.0193	6.01%
trans-ß-Ocimene†	0.0154	4.80%	**Total Terpenes†**	**0.321**	**100.00%**

Metals:

Less than LOQ for all analytes.

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Received: 11/05/21 11:28

Customer: Hempsi
3913 NE Hancock St Unit 500
Portland Oregon 97212
United States of America (USA)

Product identity: H.H. Live Oil Tincture #11042101
Client/Metrc ID: .
Sample Date:
Laboratory ID: 21-013080-0002
Evidence of Cooling: No
Temp: 20.1 °C
Relinquished by: UPS

Sample Results

Potency **Method** J AOAC 2015 V98-6 (mod) **Units** % **Batch:** 2110138 **Analyze:** 11/8/21 8:06:00 PM

Analyte	As Received	Dry weight	LOQ	Notes
CBC	0.112		0.0032	
CBC-A†	< LOQ		0.0032	
CBC-Total†	0.112		0.0060	
CBD	2.97		0.0318	
CBD-A	0.00423		0.0032	
CBD-Total	2.97		0.0346	
CBDV†	0.0176		0.0032	
CBDV-A†	< LOQ		0.0032	
CBDV-Total†	0.0176		0.0059	
CBE†	0.0141		0.0032	
CBG†	0.125		0.0032	
CBG-A†	< LOQ		0.0032	
CBG-Total	0.125		0.0059	
CBL†	< LOQ		0.0032	
CBL-A†	< LOQ		0.0032	
CBL-Total†	< LOQ		0.0060	
CBN	< LOQ		0.0032	
CBT†	0.0591		0.0032	
Δ8-THC†	< LOQ		0.0032	
Δ8-THCV	< LOQ		0.0032	
Δ9-THC	0.193		0.0032	
THC-A	< LOQ		0.0032	
THC-Total	0.193		0.0060	
THCV†	< LOQ		0.0032	
THCV-A†	< LOQ		0.0032	
THCV-Total†	< LOQ		0.0059	
Total Cannabinoids†	3.50			

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Purchase Order:
Received: 11/05/21 11:28

Solvents **Method** Residual Solvents by GC/MS **Units** µg/g **Batch** 2110148 **Analyze** 11/10/21 01:33 PM

Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
1,4-Dioxane	< LOQ	380	100	pass		2-Butanol	< LOQ	5000	200	pass	
2-Ethoxyethanol	< LOQ	160	30.0	pass		2-Methylbutane (Isopentane)	< LOQ		200		
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< LOQ	5000	200	pass	
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane)	< LOQ		200		
2,3-Dimethylbutane	< LOQ		30.0			3-Methylpentane	< LOQ		30.0		
Acetone	< LOQ	5000	200	pass		Acetonitrile	< LOQ	410	100	pass	
Benzene	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	5000	400	pass	
Cyclohexane	< LOQ	3880	200	pass		Ethyl acetate	< LOQ	5000	200	pass	
Ethyl benzene	< LOQ		200			Ethyl ether	< LOQ	5000	200	pass	
Ethylene glycol	< LOQ	620	200	pass		Ethylene oxide	< LOQ	50.0	20.0	pass	
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate	< LOQ	5000	200	pass	
Isopropylbenzene (Cumene)	< LOQ	70.0	30.0	pass		m,p-Xylene	< LOQ		200		
Methanol	< LOQ	3000	200	pass		Methylene chloride	< LOQ	600	60.0	pass	
Methylpropane (Isobutane)	< LOQ		200			n-Butane	< LOQ		200		
n-Heptane	< LOQ	5000	200	pass		n-Hexane	< LOQ		30.0		
n-Pentane	< LOQ		200			o-Xylene	< LOQ		200		
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass	
Tetrahydrofuran	< LOQ	720	100	pass		Toluene	< LOQ	890	100	pass	
Total Xylenes	< LOQ		400			Total Xylenes and Ethyl benzene	< LOQ	2170	600	pass	

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Received: 11/05/21 11:28

Pesticides **Method** AOAC 2007.01 & EN 15662 (mod) **Units** mg/kg **Batch** 2110111 **Analyze** 11/09/21 03:09 PM

Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin	< LOQ	0.50	0.250	pass		Acephate	< LOQ	0.40	0.250	pass	
Acequinocyl	< LOQ	2.0	1.00	pass		Acetamiprid	< LOQ	0.20	0.100	pass	
Aldicarb	< LOQ	0.40	0.200	pass		Azoxystrobin	< LOQ	0.20	0.100	pass	
Bifenazate	< LOQ	0.20	0.100	pass		Bifenthrin	< LOQ	0.20	0.100	pass	
Boscalid	< LOQ	0.40	0.200	pass		Carbaryl	< LOQ	0.20	0.100	pass	
Carbofuran	< LOQ	0.20	0.100	pass		Chlorantraniliprole	< LOQ	0.20	0.100	pass	
Chlorfenapyr	< LOQ	1.0	0.500	pass		Chlorpyrifos	< LOQ	0.20	0.100	pass	
Clofentezine	< LOQ	0.20	0.100	pass		Cyfluthrin	< LOQ	1.0	0.500	pass	
Cypermethrin	< LOQ	1.0	0.500	pass		Daminozide	< LOQ	1.0	0.500	pass	
Diazinon	< LOQ	0.20	0.100	pass		Dichlorvos	< LOQ	1.0	0.500	pass	
Dimethoate	< LOQ	0.20	0.100	pass		Ethoprophos	< LOQ	0.20	0.100	pass	
Etofenprox	< LOQ	0.40	0.200	pass		Etoxazole	< LOQ	0.20	0.100	pass	
Fenoxycarb	< LOQ	0.20	0.100	pass		Fenpyroximate	< LOQ	0.40	0.200	pass	
Fipronil	< LOQ	0.40	0.200	pass		Flonicamid	< LOQ	1.0	0.400	pass	
Fludioxonil	< LOQ	0.40	0.200	pass		Hexythiazox	< LOQ	1.0	0.400	pass	
Imazalil	< LOQ	0.20	0.100	pass		Imidacloprid	< LOQ	0.40	0.200	pass	
Kresoxim-methyl	< LOQ	0.40	0.200	pass		Malathion	< LOQ	0.20	0.100	pass	
Metalaxyl	< LOQ	0.20	0.100	pass		Methiocarb	< LOQ	0.20	0.100	pass	
Methomyl	< LOQ	0.40	0.200	pass		MGK-264	< LOQ	0.20	0.100	pass	
Myclobutanil	< LOQ	0.20	0.100	pass		Naled	< LOQ	0.50	0.250	pass	
Oxamyl	< LOQ	1.0	0.500	pass		Paclobutrazole	< LOQ	0.40	0.200	pass	
Parathion-Methyl	< LOQ	0.20	0.200	pass		Permethrin	< LOQ	0.20	0.100	pass	
Phosmet	< LOQ	0.20	0.100	pass		Piperonyl butoxide	< LOQ	2.0	1.00	pass	
Prallethrin	< LOQ	0.20	0.200	pass		Propiconazole	< LOQ	0.40	0.200	pass	
Propoxur	< LOQ	0.20	0.100	pass		Pyrethrin I (total)	< LOQ	1.0	0.500	pass	
Pyridaben	< LOQ	0.20	0.100	pass		Spinosad	< LOQ	0.20	0.100	pass	
Spiromesifen	< LOQ	0.20	0.100	pass		Spirotetramat	< LOQ	0.20	0.100	pass	
Spiroxamine	< LOQ	0.40	0.200	pass		Tebuconazole	< LOQ	0.40	0.200	pass	
Thiacloprid	< LOQ	0.20	0.100	pass		Thiamethoxam	< LOQ	0.20	0.100	pass	
Trifloxystrobin	< LOQ	0.20	0.100	pass							

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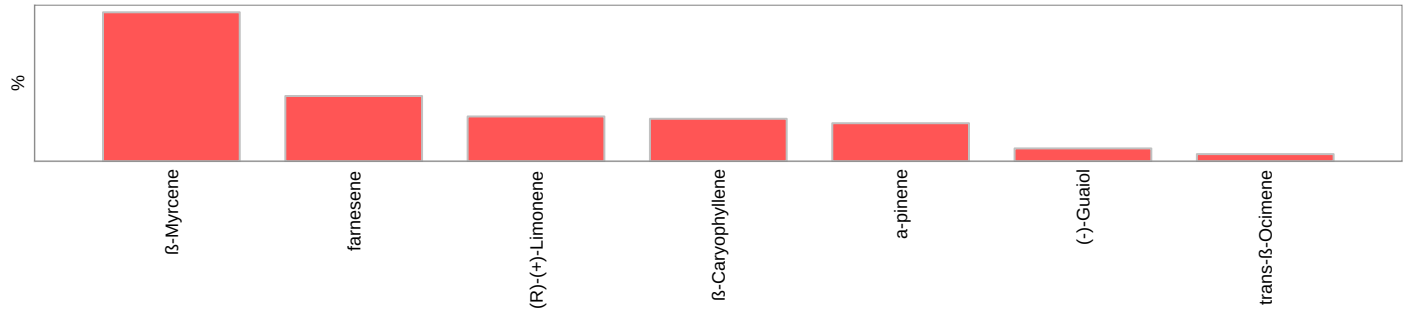
Purchase Order:
Received: 11/05/21 11:28

Terpenes

Method J AOAC 2015 V98-6 **Units** % **Batch** 2110153 **Analyze** 11/09/21 09:50 AM

Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
ß-Myrcene†	0.113	0.019	35.202%		farnesene†	0.0555	0.019	17.2897%	
(R)-(+)-Limonene†	0.0414	0.019	12.8972%		ß-Caryophyllene†	0.0398	0.019	12.3988%	
a-pinene†	0.0367	0.019	11.4330%		(-)-Guaiol†	0.0193	0.019	6.0125%	
Humulene†	< LOQ	0.019	0.00%		trans-ß-Ocimene†	0.0154	0.012	4.7975%	
Geraniol†	< LOQ	0.019	0.00%		Sabinene†	< LOQ	0.019	0.00%	
a-Bisabolol†	< LOQ	0.019	0.00%		Linalool†	< LOQ	0.019	0.00%	
gamma-Terpinene†	< LOQ	0.019	0.00%		(+)-fenchol†	< LOQ	0.019	0.00%	
a-Terpinene†	< LOQ	0.019	0.00%		(-)-ß-Pinene†	< LOQ	0.019	0.00%	
Terpinolene†	< LOQ	0.019	0.00%		(+)-Borneol†	< LOQ	0.019	0.00%	
cis-ß-Ocimene†	< LOQ	0.006	0.00%		(-)-a-Terpineol†	< LOQ	0.019	0.00%	
nerol†	< LOQ	0.019	0.00%		Sabinene hydrate†	< LOQ	0.019	0.00%	
(±)-trans-Nerolidol†	< LOQ	0.019	0.00%		Menthol†	< LOQ	0.019	0.00%	
Geranyl acetate†	< LOQ	0.019	0.00%		(+)-Pulegone†	< LOQ	0.019	0.00%	
(±)-Camphor†	< LOQ	0.019	0.00%		(±)-fenchone†	< LOQ	0.019	0.00%	
a-phellandrene†	< LOQ	0.019	0.00%		(-)-caryophyllene oxide†	< LOQ	0.019	0.00%	
(-)-Isopulegol†	< LOQ	0.019	0.00%		(+)-Cedrol†	< LOQ	0.019	0.00%	
(±)-cis-Nerolidol†	< LOQ	0.019	0.00%		a-cedrene†	< LOQ	0.019	0.00%	
Camphene†	< LOQ	0.019	0.00%		d-3-Carene†	< LOQ	0.019	0.00%	
Eucalyptol†	< LOQ	0.019	0.00%		Isoborneol†	< LOQ	0.019	0.00%	
p-Cymene†	< LOQ	0.019	0.00%		valencene†	< LOQ	0.019	0.00%	
Total Terpenes	**0.321**								



Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Status	Notes
Arsenic	< LOQ	0.200	mg/kg	0.0454	2110108	11/09/21	AOAC 2013.06 (mod.)	pass	X
Cadmium	< LOQ	0.200	mg/kg	0.0454	2110108	11/09/21	AOAC 2013.06 (mod.)	pass	X
Lead	< LOQ	0.500	mg/kg	0.0454	2110108	11/09/21	AOAC 2013.06 (mod.)	pass	X
Mercury	< LOQ	0.100	mg/kg	0.0227	2110108	11/09/21	AOAC 2013.06 (mod.)	pass	X

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Received: 11/05/21 11:28

Mycotoxins

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Status	Notes
Aflatoxin B2†	< LOQ		µg/kg	5.00	2110094	11/09/21	AOAC 2007.01 & EN 15		
Aflatoxin B1†	< LOQ		µg/kg	5.00	2110094	11/09/21	AOAC 2007.01 & EN 15		
Aflatoxin G1†	< LOQ		µg/kg	5.00	2110094	11/09/21	AOAC 2007.01 & EN 15		
Aflatoxin G2†	< LOQ		µg/kg	5.00	2110094	11/09/21	AOAC 2007.01 & EN 15		
Deoxynivalenol†	< LOQ		µg/kg	200	2110094	11/09/21	AOAC 2007.01 & EN 15		
Fumonisin B1†	< LOQ		µg/kg	200	2110094	11/09/21	AOAC 2007.01 & EN 15		
Fumonisin B2†	< LOQ		µg/kg	200	2110094	11/09/21	AOAC 2007.01 & EN 15		
HT2-Toxin†	< LOQ		µg/kg	40.0	2110094	11/09/21	AOAC 2007.01 & EN 15		
Nivalenol†	< LOQ		µg/kg	400	2110094	11/09/21	AOAC 2007.01 & EN 15		
Ochratoxin A†	< LOQ		µg/kg	5.00	2110094	11/09/21	AOAC 2007.01 & EN 15		
Ochratoxin B†	< LOQ		µg/kg	2.00	2110094	11/09/21	AOAC 2007.01 & EN 15		
T2-Toxin†	< LOQ		µg/kg	20.0	2110094	11/09/21	AOAC 2007.01 & EN 15		
Zearalenone†	< LOQ		µg/kg	200	2110094	11/09/21	AOAC 2007.01 & EN 15		

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These test results are representative of the individual sample selected and submitted by the client.

Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

† = Analyte not NELAP accredited.

Units of Measure

µg/g = Microgram per gram
µg/kg = Micrograms per kilogram = parts per billion (ppb)
mg/kg = Milligram per kilogram = parts per million (ppm)
% = Percentage of sample
% wt = µg/g divided by 10,000

Glossary of Qualifiers

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager

Columbia LABORATORIES
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Columbia LABORATORIES
A Tentamus Company

Hemp / Cannabis Usable / Extract / Finished Products
Chain of Custody Record

Document Control ID: 2732 Revision: 1
Effective: 05/04/2021
ORELAP ID: OR100028

Company: Hempsi
Contact: Andrew Barton
Street: 815 Grand Blvd
City: Vancouver State: WA Zip: 98661
☑ Email Results: a.barton@hempsi.com
Ph: (___)_____ ☐ Fx Results: (___)_____
Billing (if different):_____

PO Number: _____
Project Number: _____
Project Name: _____
Custom Reporting: _____
Report to State - ☐ METRC or ☐ Other: _____
Turnaround time: ☑ 5 Business Day Standard Turnaround
☐ 3 Business Day Rush Turnaround*
☐ 2 Business Day Rush Turnaround*
Check for availability
Sampled by: _____

Lab ID	Client Sample Identification	Date	Time	Pesticides – OR 59 compounds	Pesticide Multi-Residue – 379 compounds	Potency	Residual Solvents	Moisture & Water Activity	Terpenes	Micro: Yeast and Mold	Micro: *E.Coli* and Total Coliform	Heavy Metals	Mycotoxins	Other:	Sample Type †	Weight (Units)	Comments/Metrc ID
	Hawaiian Haze Live Resin	11/4/21	9:30 am	X		X	X		X			X	X		C	~10g	
	H.H. Live Oil Tincture #11042101	11/4/21	9:30 am	X		X	X		X			X	X		T	~30g	
	Sour RNA Live Oil Tincture #10282101	11/4/21	9:30 am	X		X	X		X			X	X		T	~30g	

Relinquished By:	Date	Time	Received By:	Date	Time
Andrew Barton	11/4/21	9:30am	JMW	11-5-21	11:28

Lab Use Only:
☐ Shipped Via: UPS or ☐ Client drop
Evidence of cooling: ☐ Yes ☐ No - Temp (°C): 20.1
Sample in good condition: ☑ Yes ☐ No
☐ Cash | ☐ Check | ☐ CC | ☐ Net: _____
Prelog storage: _____

† - Sample Type Codes: Vegetation (V) ; Isolates (S) ; Extract/Concentrate (C) ; Tincture/Topical (T) ; Edible (E) ; Beverage (B)

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the current terms of service associated with this COC. By signing "Relinquished by" you are agreeing to these terms

12423 NE Whitaker Way
Portland, OR 97230
P: (503) 254-1794 ! Fax: (503) 254-1452
info@columbialaboratories.com

Page _____ of _____
www.columbialaboratories.com

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Columbia LABORATORIES
A Tentamus Company

Document ID: 3177 Revision: 2
Effective: 06/25/2021
Page 1 of 1

Job Number: _____ Search Name: _____

Package/Cooler opened on (if different than received date/time) Date: 11-5-21 Time: 11.28

Received By (Initials): JV Logged in by (Initials): _____ Date: _____ Time: _____

1) Were custody seals on outside of the package/cooler? YES NO (NA)
If YES, how many and where? _____

Does date match collection date on COC? ---------- YES NO (NA)

2) Was Chain of Custody (COC) included in the package/cooler? (YES) NO NA

3) Was COC signed when relinquished and received? (time, date)? (YES) NO NA

4) How was the package/cooler delivered?

(UPS) FEDEX USPS CLIENT COURIER OTHER: _____

Tracking Number (written in or copy of shipping label): 1Z 937 A57 13 2305 5247

5) Was packing material used? (YES) NO NA

Peanuts (Bubble Wrap) Foam Paper Other:

6) Was temperature upon receipt 4°C+- 2°C (if appropriate)? JV 11-5-21 (YES) NO NA
If not, client contacted: _____
Proceed? YES (NO)

7) Was there evidence of cooling? YES (NO) NA

What kind? Blue Ice Ice Cooler Packs Dry Ice

8) Were all sample containers sealed in separate plastic bags? (YES) NO NA

9) Did all sample containers arrive in good condition? (YES) NO NA

10) Were all sample container labels complete? (YES) NO NA

11) Did all sample container labels and tags agree with the COC? (YES) NO NA

12) Were correct sample containers used for the tests indicated? (YES) NO NA

13) Were VOA vials checked for absence of air bubbles (note if found)? YES NO (NA)

14) Was a sufficient amount of sample sent in each sample container? (YES) NO NA

16) Sample location prior to login: R99 R39 R44 F44 Ambient Shelf (Cannabis Table) Other: _____

Explain any discrepancies: _____

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Revision: 2 Document ID: 3120
Legacy ID: CFL-C21Effective:

Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662 | Units: mg/Kg | Batch ID: 2110111

Method Blank				Laboratory Control Sample				
Analyte	Blank Result	Blank Limits	Notes	LCS Result	LCS Spike	LCS % Rec	Limits	Notes
Acephate	0.020	< 0.250		1.230	1.000	123.0	71.6 - 133	
Acequinocyl	0.000	< 1.000		4.924	4.000	123.1	70.8 - 132	
Acetamiprid	0.000	< 0.100		0.486	0.400	121.4	71.4 - 133	
Aldicarb	0.000	< 0.200		0.956	0.800	119.5	74.1 - 138	
Abamectin	0.000	< 0.250		1.304	1.000	130.4	74.6 - 139	
Azoxystrobin	0.000	< 0.100		0.482	0.400	120.4	70.8 - 132	
Bifenazate	0.000	< 0.100		0.757	0.400	***189.3***	75.9 - 141	Q1
Bifenthrin	0.000	< 0.100		0.519	0.400	129.7	70.2 - 130	
Boscalid	0.000	< 0.200		1.046	0.800	130.7	71.1 - 132	
Carbaryl	0.002	< 0.100		0.501	0.400	125.3	71.4 - 133	
Carbofuran	0.022	< 0.100		0.468	0.400	117.0	72.8 - 135	
Chlorantraniliprol	0.000	< 0.100		0.375	0.400	93.7	67.8 - 126	
Chlorfenapyr	0.000	< 0.500		2.381	2.000	119.0	72.1 - 134	
Chlorpyrifos	0.000	< 0.100		0.478	0.400	119.6	69.3 - 129	
Clofentezine	0.000	< 0.100		0.508	0.400	126.9	70.6 - 131	
Cyfluthrin	0.000	< 0.500		2.604	2.000	130.2	73.4 - 136	
Cypermethrin	0.000	< 0.500		2.517	2.000	125.9	72.4 - 134	
Daminozide	0.000	< 0.500		2.222	2.000	111.1	71.5 - 133	
Diazinon	0.000	< 0.100		0.513	0.400	128.2	71.5 - 133	
Dichlorvos	0.000	< 0.500		2.198	2.000	109.9	69.9 - 130	
Dimethoat	0.000	< 0.100		0.488	0.400	121.9	71.3 - 132	
Ethoprophos	0.000	< 0.100		0.510	0.400	127.5	70.2 - 130	
Etofenprox	0.000	< 0.200		1.069	0.800	133.6	72.8 - 135	
Etoxazol	0.000	< 0.100		0.528	0.400	131.9	71.9 - 134	
Fenoxycarb	0.000	< 0.100		0.506	0.400	126.6	70.9 - 132	
Fenpyroximat	0.000	< 0.200		0.979	0.800	122.4	71.9 - 133	
Fipronil	0.000	< 0.200		1.084	0.800	135.5	73.1 - 136	
Flonicamid	0.000	< 0.250		1.076	1.000	107.6	71.5 - 133	
Fludioxonil	0.000	< 0.200		1.016	0.800	127.0	74.7 - 139	
Hexythiazox	0.000	< 0.250		1.278	1.000	127.8	69.7 - 129	
Imazalil	0.000	< 0.100		0.506	0.400	126.4	73.3 - 136	
Imidacloprid	0.000	< 0.200		0.977	0.800	122.2	71.0 - 132	
Kresoxim-Methyl	0.000	< 0.200		1.018	0.800	127.3	71.1 - 132	
Malathion	0.000	< 0.100		0.518	0.400	129.6	70.8 - 132	
Metalaxyl	0.000	< 0.100		0.513	0.400	128.3	71.7 - 133	
Methiocarb	0.000	< 0.100		0.497	0.400	124.2	70.8 - 132	
Methomyl	0.000	< 0.200		0.885	0.800	110.6	70.7 - 131	
MGK 264	0.000	< 0.100		0.510	0.400	127.5	70.8 - 132	
Myclobutanil	0.000	< 0.100		0.518	0.400	129.5	71.4 - 133	
Naled	0.000	< 0.250		1.189	1.000	118.9	72.8 - 135	
Oxamyl	0.000	< 0.500		2.079	2.000	104.0	71.6 - 133	
Paclobutrazol	0.000	< 0.200		1.033	0.800	129.2	71.7 - 133	
Parathion Methyl	0.000	< 0.200		1.006	0.800	125.8	73.9 - 137	
Permethrin	0.000	< 0.100		0.518	0.400	129.5	71.4 - 133	
Phosmet	0.000	< 0.100		0.521	0.400	130.1	71.0 - 132	
Piperonyl butoxide	0.000	< 0.500		2.624	2.000	131.2	73.9 - 137	
Prallethrin	0.000	< 0.100		0.501	0.400	125.3	71.6 - 133	
Propiconazole	0.018	< 0.200		1.033	0.800	129.1	71.2 - 132	
Propoxur	0.004	< 0.100		0.490	0.400	122.5	70.7 - 131	
Pyrethrins	0.000	< 0.100		0.397	0.413	96.2	68.3 - 127	
Pyridaben	0.000	< 0.100		0.512	0.400	128.1	70.9 - 132	
Spinosad	0.000	< 0.100		0.518	0.388	133.6	73.5 - 137	
Spiromesifen	0.000	< 0.100		0.523	0.400	130.8	72.4 - 134	
Spirotetramat	0.000	< 0.100		0.507	0.400	126.8	71.4 - 133	
Spiroxamine	0.000	< 0.200		0.871	0.800	108.9	69.4 - 129	
Tebuconazol	0.000	< 0.200		1.033	0.800	129.1	71.0 - 132	
Thiacloprid	0.000	< 0.100		0.499	0.400	124.7	70.6 - 131	
Thiamethoxam	0.000	< 0.100		0.420	0.400	105.1	70.6 - 131	
Trifloxystrobin	0.000	< 0.100		0.494	0.400	123.4	71.1 - 132	

Columbia LABORATORIES
A Tentamus Company

12423 NE Whitaker Way
Portland, OR 97230
503-254-1794

Report Number: 21-013080/D003.R000
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ORELAP#: OR100028
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Revision: 2 Document ID: 3120
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Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662 | Units: mg/Kg | Batch ID: 2110111

Matrix Spike/Matrix Spike Duplicate Recoveries | Sample ID: 21-012818-0003

Analyte	Result	MS Res	MSD Res	Spike	RPD%	Limit	MS % Rec	MSD % Rec	Limits	Notes
Acephate	0.030	1.191	1.256	1.000	5.4%	< 30	116.2%	122.6%	50 - 150	
Acequinocyl	0.000	4.797	5.125	4.000	6.6%	< 30	119.9%	128.1%	50 - 150	
Acetamiprid	0.000	0.512	0.515	0.400	0.7%	< 30	128.0%	128.8%	50 - 150	
Aldicarb	0.000	0.914	0.989	0.800	7.9%	< 30	114.2%	123.6%	50 - 150	
Abamectin	0.000	1.499	1.616	1.000	7.5%	< 30	149.9%	161.6%	50 - 150	Q1
Azoxystrobin	0.000	0.471	0.493	0.400	4.5%	< 30	117.8%	123.2%	50 - 150	
Bifenazate	0.000	0.785	0.842	0.400	7.0%	< 30	196.3%	210.5%	50 - 150	Q1
Bifenthrin	0.000	0.483	0.532	0.400	9.7%	< 30	120.8%	133.1%	50 - 150	
Boscalid	0.000	1.035	1.137	0.800	9.4%	< 30	129.3%	142.1%	50 - 150	
Carbaryl	0.000	0.478	0.502	0.400	4.8%	< 30	119.6%	125.4%	50 - 150	
Carbofuran	0.000	0.462	0.481	0.400	4.1%	< 30	115.5%	120.3%	50 - 150	
Chlorantraniliprol	0.000	0.398	0.414	0.400	3.8%	< 30	99.5%	103.4%	50 - 150	
Chlorfenapyr	0.000	2.813	2.826	2.000	0.5%	< 30	140.7%	141.3%	50 - 150	
Chlorpyrifos	0.000	0.474	0.502	0.400	5.7%	< 30	118.5%	125.4%	50 - 150	
Clofentezine	0.000	0.510	0.529	0.400	3.7%	< 30	127.6%	132.4%	50 - 150	
Cyfluthrin	0.000	1.636	1.799	2.000	9.5%	< 30	81.8%	90.0%	30 - 150	
Cypermethrin	0.000	1.623	1.681	2.000	3.5%	< 30	81.1%	84.0%	50 - 150	
Daminozide	0.000	2.660	2.739	2.000	2.9%	< 30	133.0%	136.9%	30 - 150	
Diazinon	0.000	0.488	0.505	0.400	3.5%	< 30	122.0%	126.3%	50 - 150	
Dichlorvos	0.000	2.154	2.270	2.000	5.3%	< 30	107.7%	113.5%	50 - 150	
Dimethoat	0.000	0.485	0.508	0.400	4.7%	< 30	121.3%	127.1%	50 - 150	
Ethoprophos	0.000	0.495	0.530	0.400	6.7%	< 30	123.9%	132.4%	50 - 150	
Etofenprox	0.000	1.026	1.110	0.800	7.8%	< 30	128.3%	138.7%	50 - 150	
Etoxazol	0.000	0.528	0.556	0.400	5.2%	< 30	131.9%	138.9%	50 - 150	
Fenoxycarb	0.000	0.517	0.543	0.400	5.0%	< 30	129.2%	135.8%	50 - 150	
Fenpyroximat	0.000	0.818	0.864	0.800	5.4%	< 30	102.2%	107.9%	50 - 150	
Fipronil	0.000	1.044	1.182	0.800	12.4%	< 30	130.5%	147.7%	50 - 150	
Flonicamid	0.000	1.058	1.199	1.000	12.4%	< 30	105.8%	119.9%	50 - 150	
Fludioxonil	0.000	1.084	1.119	0.800	3.1%	< 30	135.6%	139.9%	50 - 150	
Hexythiazox	0.000	1.335	1.359	1.000	1.8%	< 30	133.5%	135.9%	50 - 150	
Imazalil	0.000	0.509	0.531	0.400	4.1%	< 30	127.3%	132.7%	50 - 150	
Imidacloprid	0.000	0.969	1.028	0.800	5.9%	< 30	121.1%	128.4%	50 - 150	
Kresoxim-Methyl	0.000	1.023	1.082	0.800	5.6%	< 30	127.8%	135.2%	50 - 150	
Malathion	0.000	0.508	0.531	0.400	4.5%	< 30	126.9%	132.7%	50 - 150	
Metalaxyl	0.000	0.511	0.539	0.400	5.3%	< 30	127.8%	134.7%	50 - 150	
Methiocarb	0.000	0.478	0.559	0.400	15.6%	< 30	119.5%	139.7%	50 - 150	
Methomyl	0.000	0.796	1.016	0.800	24.2%	< 30	99.5%	127.0%	50 - 150	
MGK 264	0.000	0.520	0.542	0.400	4.0%	< 30	130.1%	135.4%	50 - 150	
Myclobutanil	0.000	0.492	0.497	0.400	1.1%	< 30	123.0%	124.4%	50 - 150	
Naled	0.000	1.235	1.261	1.000	2.1%	< 30	123.5%	126.1%	50 - 150	
Oxamyl	0.000	2.065	2.419	2.000	15.8%	< 30	103.3%	120.9%	50 - 150	
Paclobutrazol	0.000	1.028	1.094	0.800	6.3%	< 30	128.5%	136.7%	50 - 150	
Parathion Methyl	0.000	1.085	1.096	0.800	1.1%	< 30	135.6%	137.1%	30 - 150	
Permethrin	0.000	0.494	0.522	0.400	5.6%	< 30	123.4%	130.5%	50 - 150	
Phosmet	0.000	0.524	0.569	0.400	8.4%	< 30	130.9%	142.3%	50 - 150	
Piperonyl butoxide	0.000	2.839	2.973	2.000	4.6%	< 30	142.0%	148.7%	50 - 150	
Prallethrin	0.016	0.551	0.560	0.400	1.7%	< 30	133.8%	136.1%	50 - 150	
Propiconazole	0.015	1.053	1.064	0.800	1.0%	< 30	129.7%	131.0%	50 - 150	
Propoxur	0.000	0.471	0.488	0.400	3.5%	< 30	117.8%	122.0%	50 - 150	
Pyrethrins	0.000	0.388	0.418	0.413	7.4%	< 30	93.9%	101.1%	50 - 150	
Pyridaben	0.000	0.549	0.554	0.400	0.8%	< 30	137.2%	138.4%	50 - 150	
Spinosad	0.000	0.514	0.546	0.388	6.0%	< 30	132.6%	140.7%	50 - 150	
Spiromesifen	0.000	0.536	0.545	0.400	1.6%	< 30	134.0%	136.2%	50 - 150	
Spirotetramat	0.000	0.528	0.550	0.400	4.0%	< 30	132.0%	137.4%	50 - 150	
Spiroxamine	0.000	0.818	0.975	0.800	17.5%	< 30	102.3%	121.8%	50 - 150	
Tebuconazol	0.000	1.050	1.105	0.800	5.0%	< 30	131.3%	138.1%	50 - 150	
Thiacloprid	0.000	0.505	0.511	0.400	1.2%	< 30	126.3%	127.8%	50 - 150	
Thiamethoxam	0.000	0.410	0.426	0.400	3.8%	< 30	102.5%	106.5%	50 - 150	
Trifloxystrobin	0.000	0.570	0.534	0.400	6.4%	< 30	142.5%	133.6%	50 - 150	

Columbia LABORATORIES
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ORELAP#: OR100028
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Revision #: 0.00 Control : CFL-D06
Revision Date: 05/31/2019 Effective Date: 05/31/2019

Laboratory Quality Control Results

J AOAC 2015 V98-6 **Batch ID: 2110138**

Laboratory Control Sample

Analyte	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	0.00954	0.01	%	95.4	85.0 - 115	Acceptable	
CBDV	0.00993	0.01	%	99.3	85.0 - 115	Acceptable	
CBE	0.00982	0.01	%	98.2	85.0 - 115	Acceptable	
CBDA	0.00976	0.01	%	97.6	85.0 - 115	Acceptable	
CBGA	0.00956	0.01	%	95.6	85.0 - 115	Acceptable	
CBG	0.00989	0.01	%	98.9	85.0 - 115	Acceptable	
CBD	0.0102	0.01	%	102	85.0 - 115	Acceptable	
THCV	0.00943	0.01	%	94.3	85.0 - 115	Acceptable	
d8THCV	0.00964	0.01	%	96.4	85.0 - 115	Acceptable	
THCVA	0.00925	0.01	%	92.5	85.0 - 115	Acceptable	
CBN	0.0103	0.01	%	103	85.0 - 115	Acceptable	
exo-THC	0.00956	0.01	%	95.6	85.0 - 115	Acceptable	
d9THC	0.00987	0.01	%	98.7	85.0 - 115	Acceptable	
d8THC	0.00987	0.01	%	98.7	85.0 - 115	Acceptable	
CBL	0.00952	0.01	%	95.2	85.0 - 115	Acceptable	
CBC	0.0100	0.01	%	100	85.0 - 115	Acceptable	
THCA	0.00994	0.01	%	99.4	85.0 - 115	Acceptable	
CBCA	0.00951	0.01	%	95.1	85.0 - 115	Acceptable	
CBLA	0.00999	0.01	%	99.9	85.0 - 115	Acceptable	
CBT	0.0103	0.01	%	103	85.0 - 115	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.003	%	< 0.003	Acceptable	
CBDV	<LOQ	0.003	%	< 0.003	Acceptable	
CBE	<LOQ	0.003	%	< 0.003	Acceptable	
CBDA	<LOQ	0.003	%	< 0.003	Acceptable	
CBGA	<LOQ	0.003	%	< 0.003	Acceptable	
CBG	<LOQ	0.003	%	< 0.003	Acceptable	
CBD	<LOQ	0.003	%	< 0.003	Acceptable	
THCV	<LOQ	0.003	%	< 0.003	Acceptable	
d8THCV	<LOQ	0.003	%	< 0.003	Acceptable	
THCVA	<LOQ	0.003	%	< 0.003	Acceptable	
CBN	<LOQ	0.003	%	< 0.003	Acceptable	
exo-THC	<LOQ	0.003	%	< 0.003	Acceptable	
d9THC	<LOQ	0.003	%	< 0.003	Acceptable	
d8THC	<LOQ	0.003	%	< 0.003	Acceptable	
CBL	<LOQ	0.003	%	< 0.003	Acceptable	
CBC	<LOQ	0.003	%	< 0.003	Acceptable	
THCA	<LOQ	0.003	%	< 0.003	Acceptable	
CBCA	<LOQ	0.003	%	< 0.003	Acceptable	
CBLA	<LOQ	0.003	%	< 0.003	Acceptable	
CBT	<LOQ	0.003	%	< 0.003	Acceptable	

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation

Units of Measure:

% - Percent

Columbia LABORATORIES
A Tentamus Company

12423 NE Whitaker Way
Portland, OR 97230
503-254-1794

Report Number: 21-013080/D003.R000
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ORELAP#: OR100028
Purchase Order:
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Revision #: 0.00 Control : CFL-D06
Revision Date: 05/31/2019 Effective Date: 05/31/2019

Laboratory Quality Control Results

J AOAC 2015 V98-6 **Batch ID: 2110138**

Sample Duplicate Sample ID: **21-005060-0003**

Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	0	0	0.003	%	10	< 20	Acceptable	
CBDV	0.0452	0.0476	0.003	%	5.14	< 20	Acceptable	
CBE	0.0157	0.0161	0.003	%	2.29	< 20	Acceptable	
CBDA	0.484	0.496	0.003	%	2.51	< 20	Acceptable	
CBGA	0.00843	0.00869	0.003	%	3.02	< 20	Acceptable	
CBG	0.0192	0.0196	0.003	%	1.94	< 20	Acceptable	
CBD	2.86	2.87	0.003	%	0.282	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d9THC	0.0404	0.0416	0.003	%	2.88	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBC	0.150	0.153	0.003	%	2.43	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBCA	0.0417	0.0396	0.003	%	5.19	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBT	0.0270	0.0270	0.003	%	0.00921	< 20	Acceptable	

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation
NA - Calculation Not Applicable given non-numerical results

Units of Measure:

% - Percent

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Laboratory Quality Control Results

Residual Solvents **Batch ID:** 2110148

Method Blank					Laboratory Control Sample							
Analyte	**Result**		**LOQ**	**Notes**	**Result**	**Spike**	**Units**	**% Rec**	**Limits**			**Notes**
Propane	ND	<	200		929	948	µg/g	98.0	70	-	130	
Isobutane	ND	<	200		1080	1260	µg/g	85.7	70	-	130	
Butane	ND	<	200		1070	1260	µg/g	84.9	70	-	130	
2,2-Dimethylpropane	ND	<	200		1650	1600	µg/g	103.1	70	-	130	
Methanol	ND	<	200		1830	1610	µg/g	113.7	70	-	130	
Ethylene Oxide	ND	<	30		94.9	95.7	µg/g	99.2	70	-	130	
2-Methylbutane	ND	<	200		1610	1610	µg/g	100.0	70	-	130	
Pentane	ND	<	200		1580	1610	µg/g	98.1	70	-	130	
Ethanol	ND	<	200		1790	1610	µg/g	111.2	70	-	130	
Ethyl Ether	ND	<	200		1640	1610	µg/g	101.9	70	-	130	
2,2-Dimethylbutane	ND	<	30		139	164	µg/g	84.8	70	-	130	
Acetone	ND	<	200		1600	1610	µg/g	99.4	70	-	130	
2-Propanol	ND	<	200		1570	1610	µg/g	97.5	70	-	130	
Acetonitrile	ND	<	100		405	484	µg/g	83.7	70	-	130	
2,3-Dimethylbutane	ND	<	30		161	167	µg/g	96.4	70	-	130	
Dichloromethane	ND	<	60		469	491	µg/g	95.5	70	-	130	
2-Methylpentane	ND	<	30		145	165	µg/g	87.9	70	-	130	
3-Methylpentane	ND	<	30		177	172	µg/g	102.9	70	-	130	
Hexane	ND	<	30		175	167	µg/g	104.8	70	-	130	
Ethyl acetate	ND	<	200		1660	1610	µg/g	103.1	70	-	130	
2-Butanol	ND	<	200		1610	1610	µg/g	100.0	70	-	130	
Tetrahydrofuran	ND	<	100		471	483	µg/g	97.5	70	-	130	
Cyclohexane	ND	<	200		1520	1610	µg/g	94.4	70	-	130	
Benzene	ND	<	1		4.73	5.36	µg/g	88.2	70	-	130	
Isopropyl Acetate	ND	<	200		1600	1620	µg/g	98.8	70	-	130	
Heptane	ND	<	200		1530	1610	µg/g	95.0	70	-	130	
1,4-Dioxane	ND	<	100		460	489	µg/g	94.1	70	-	130	
2-Ethoxyethanol	ND	<	30		169	167	µg/g	101.2	70	-	130	
Ethylene Glycol	ND	<	200		510	504	µg/g	101.2	70	-	130	
Toluene	ND	<	200		443	484	µg/g	91.5	70	-	130	
Ethylbenzene	ND	<	200		855	968	µg/g	88.3	70	-	130	
m,p-Xylene	ND	<	200		867	977	µg/g	88.7	70	-	130	
o-Xylene	ND	<	200		859	982	µg/g	87.5	70	-	130	
Cumene	ND	<	30		145	169	µg/g	85.8	70	-	130	

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QC - Sample Duplicate **Sample ID: 21-013000-0001**

Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Accept/Fail	Notes
Propane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Isobutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Butane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylpropane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Methanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethylene Oxide	ND	ND	30	µg/g	0.0	< 20	Acceptable	
2-Methylbutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Pentane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Ether	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Acetone	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Propanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Acetonitrile	ND	ND	100	µg/g	0.0	< 20	Acceptable	
2,3-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Dichloromethane	ND	ND	60	µg/g	0.0	< 20	Acceptable	
2-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
3-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Hexane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Ethyl acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Butanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Tetrahydrofuran	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Cyclohexane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Benzene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Isopropyl Acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Heptane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
1,4-Dioxane	ND	ND	100	µg/g	0.0	< 20	Acceptable	
2-Ethoxyethanol	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Ethylene Glycol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Toluene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethylbenzene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
m,p-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
o-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Cumene	ND	ND	30	µg/g	0.0	< 20	Acceptable	

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation

Units of Measure:

µg/g- Microgram per gram or ppm

Columbia LABORATORIES
A Tentamus Company

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503-254-1794

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ORELAP#: OR100028
Purchase Order:
Received: 11/05/21 11:28

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Terpenes Quality Control Results

Method Reference: EPA 5035 **Batch ID:** 2110153

Method Blank					Laboratory Control Sample					
Analyte	**Result**	**LOQ**		**Notes**	**Result**	**LCS**	**Units**	**LCS % Rec**	**Limits**	**Notes**
a-pinene	<LOQ	<	200		447	500	µg/g	***89%***	70 - 130	
Camphene	<LOQ	<	200		465	500	µg/g	***93%***	70 - 130	
Sabinene	<LOQ	<	200		438	500	µg/g	***88%***	70 - 130	
b-Pinene	<LOQ	<	200		570	500	µg/g	***114%***	70 - 130	
b-Myrcene	<LOQ	<	200		428	500	µg/g	***86%***	70 - 130	
a-phelllandrene	<LOQ	<	200		369	500	µg/g	***74%***	70 - 130	
d-3-Carene	<LOQ	<	200		463	500	µg/g	***93%***	70 - 130	
a-Terpinene	<LOQ	<	200		458	500	µg/g	***92%***	70 - 130	
p-Cymene	<LOQ	<	200		441	500	µg/g	***88%***	70 - 130	
D-Limonene	<LOQ	<	200		435	500	µg/g	***87%***	70 - 130	
Eucalyptol	<LOQ	<	200		454	500	µg/g	***91%***	70 - 130	
b-cis-Ocimene	<LOQ	<	67		138	167	µg/g	***83%***	70 - 130	
b-trans-Ocimene	<LOQ	<	133		297	333	µg/g	***89%***	70 - 130	
g-Terpinene	<LOQ	<	200		419	500	µg/g	***84%***	70 - 130	
Sabinene_Hydrate	<LOQ	<	200		458	500	µg/g	***92%***	70 - 130	
Terpinolene	<LOQ	<	200		448	500	µg/g	***90%***	70 - 130	
D-Fenchone	<LOQ	<	200		449	500	µg/g	***90%***	70 - 130	
Linalool	<LOQ	<	200		534	500	µg/g	***107%***	70 - 130	
Fenchol	<LOQ	<	200		456	500	µg/g	***91%***	70 - 130	
Camphor	<LOQ	<	200		449	500	µg/g	***90%***	70 - 130	
Isopulego	<LOQ	<	200		394	500	µg/g	***79%***	70 - 130	
Isoborneol	<LOQ	<	200		475	500	µg/g	***95%***	70 - 130	
Borneol	<LOQ	<	200		487	500	µg/g	***97%***	70 - 130	
DL-Menthol	<LOQ	<	200		453	500	µg/g	***91%***	70 - 130	
Terpineol	<LOQ	<	200		429	500	µg/g	***86%***	70 - 130	
Nerol	<LOQ	<	200		392	500	µg/g	***78%***	70 - 130	
Pulegone	<LOQ	<	200		508	500	µg/g	***102%***	70 - 130	
Gereniol	<LOQ	<	200		498	500	µg/g	***100%***	70 - 130	
Geranyl_Acetate	<LOQ	<	200		438	500	µg/g	***88%***	70 - 130	
a-Cedrene	<LOQ	<	200		457	500	µg/g	***91%***	70 - 130	
b-Caryophyllene	<LOQ	<	200		469	500	µg/g	***94%***	70 - 130	
a-Humulene	<LOQ	<	200		479	500	µg/g	***96%***	70 - 130	
Valenene	<LOQ	<	200		362	500	µg/g	***72%***	70 - 130	
cis-Nerolidol	<LOQ	<	200		433	500	µg/g	***87%***	70 - 130	
a-Farnesene	<LOQ	<	200		482	500	µg/g	***96%***	70 - 130	
trans-Nerolidol	<LOQ	<	200		473	500	µg/g	***95%***	70 - 130	
Caryophyllene_Oxide	<LOQ	<	200		424	500	µg/g	***85%***	70 - 130	
Guaiol	<LOQ	<	200		508	500	µg/g	***102%***	70 - 130	
Cedrol	<LOQ	<	200		473	500	µg/g	***95%***	70 - 130	
a-Bisabolol	<LOQ	<	200		456	500	µg/g	***91%***	70 - 130	

Definitions

LOQ	Limit of Quantitation
LCS	Laboratory Control Sample
% REC	Percent Recovery

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Terpenes Quality Control Results

Method Reference: EPA 5035 **Batch ID:** 2110153

Sample/Sample Duplicate **Sample ID: 21-013102-0001**

Analyte	Result	Org. Result	LOQ	Units	% RPD	LIMIT	Notes
a-pinene	1230	1230	197	µg/g	0%	< 20	
Camphene	289	256	197	µg/g	12%	< 20	
Sabinene	<LOQ	<LOQ	197	µg/g	0%	< 20	
b-Pinene	1600	1610	197	µg/g	1%	< 20	
b-Myrcene	2050	2000	197	µg/g	2%	< 20	
a-phelllandrene	<LOQ	<LOQ	197	µg/g	0%	< 20	
d-3-Carene	<LOQ	<LOQ	197	µg/g	0%	< 20	
a-Terpinene	<LOQ	<LOQ	197	µg/g	0%	< 20	
p-Cymene	<LOQ	<LOQ	197	µg/g	0%	< 20	
D-Limonene	8600	8470	197	µg/g	2%	< 20	
Eucalyptol	241	235	197	µg/g	3%	< 20	
b-cis-Ocimene	<LOQ	<LOQ	65.6	µg/g	0%	< 20	
b-trans-Ocimene	<LOQ	<LOQ	131	µg/g	0%	< 20	
g-Terpinene	<LOQ	<LOQ	197	µg/g	0%	< 20	
Sabinene_Hydrate	<LOQ	<LOQ	197	µg/g	0%	< 20	
Terpinolene	<LOQ	<LOQ	197	µg/g	0%	< 20	
D-Fenchone	<LOQ	<LOQ	197	µg/g	0%	< 20	
Linalool	3620	3550	197	µg/g	2%	< 20	
Fenchol	1380	1390	197	µg/g	1%	< 20	
Camphor	<LOQ	<LOQ	197	µg/g	0%	< 20	
Isopulego	<LOQ	<LOQ	197	µg/g	0%	< 20	
Isoborneol	<LOQ	<LOQ	197	µg/g	0%	< 20	
Borneol	338	331	197	µg/g	2%	< 20	
DL-Menthol	<LOQ	<LOQ	197	µg/g	0%	< 20	
Terpineol	1510	1480	197	µg/g	2%	< 20	
Nerol	<LOQ	<LOQ	197	µg/g	0%	< 20	
Pulegone	<LOQ	<LOQ	197	µg/g	0%	< 20	
Gereniol	<LOQ	<LOQ	197	µg/g	0%	< 20	
Geranyl_Acetate	<LOQ	<LOQ	197	µg/g	0%	< 20	
a-Cedrene	<LOQ	<LOQ	197	µg/g	0%	< 20	
b-Caryophyllene	11400	11100	197	µg/g	3%	< 20	
a-Humulene	5360	5230	197	µg/g	2%	< 20	
Valenene	<LOQ	<LOQ	197	µg/g	0%	< 20	
cis-Nerolidol	<LOQ	<LOQ	197	µg/g	0%	< 20	
a-Farnesene	1270	1250	197	µg/g	2%	< 20	
trans-Nerolidol	1310	1280	197	µg/g	2%	< 20	
Caryophyllene_Oxide	638	647	197	µg/g	1%	< 20	
Guaiol	8510	8350	197	µg/g	2%	< 20	
Cedrol	<LOQ	<LOQ	197	µg/g	0%	< 20	
a-Bisabolol	536	501	197	µg/g	7%	< 20	

Definitions

RPD Relative Percent Difference

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Explanation of QC Flag Comments:

Code	Explanation
Q	Matrix interferences affecting spike or surrogate recoveries.
Q1	Quality control result biased high. Only non-detect samples reported.
Q2	Quality control outside QC limits. Data considered estimate.
Q3	Sample concentration greater than four times the amount spiked.
Q4	Non-homogenous sample matrix, affecting RPD result and/or % recoveries.
Q5	Spike results above calibration curve.
Q6	Quality control outside QC limits. Data acceptable based on remaining QC.
R	Relative percent difference (RPD) outside control limit.
R1	RPD non-calculable, as sample or duplicate results are less than five times the LOQ.
R2	Sample replicates RPD non-calculable, as only one replicate is within the analytical range.
LOQ1	Quantitation level raised due to low sample volume and/or dilution.
LOQ2	Quantitaion level raised due to matrix interference.
B	Analyte detected in method blank, but not in associated samples.
B1	The sample concentration is greater than 5 times the blank concentration.
B2	The sample concentration is less than 5 times the blank concentration.