

**BULK SKU** TN.O.FS50

**BATCH #** FD35

**PRODUCT NAME** CBD Tincture - Classic

**SERVING SIZE** 1 mL

**LABORATORY:** Columbia Laboratories

**OREGON ACCREDITATION:** OR100028

**LOQ:** Limit Of Quantitation  
**LOD:** Limit Of Detection

 $1 \text{ g} = 10^{-3} \text{ kg} = 10^3 \text{ mg} = 10^6 \text{ }\mu\text{g}$   
 $1 \text{ mg/kg} = 1 \text{ ppm} = 1000 \text{ ppb}$ 

POTENCY	PER SERVING	PER GRAM	Percent
Cannabidiol (CBD)	<b>54.13 mg/serving</b>	58.20 mg/g	5.82 %
Total THC (d9-THC, THCA)	<b>1.89 mg/serving</b>	2.03 mg/g	0.20 %
Cannabigerol (CBG)	<b>2.03 mg/serving</b>	2.18 mg/g	0.22 %
Cannabinol (CBN)	<b>0.06 mg/serving</b>	0.07 mg/g	0.01 %
Cannabichromene (CBC)	<b>4.01 mg/serving</b>	4.31 mg/g	0.43 %
Tetrahydrocannabinolic Acid (THCA)	<LOQ mg/serving	<LOQ mg/g	<LOQ %
Delta-9-THC (d9-THC)	<b>1.89 mg/serving</b>	2.03 mg/g	0.20 %
Delta-8-THC (d8-THC)	<LOQ mg/serving	<LOQ mg/g	<LOQ %

HEAVY METALS	PER SERVING	PER GRAM	REGULATORY ACTION LEVEL
Arsenic	<LOQ $\mu\text{g/serving}$	<LOQ $\mu\text{g/g}$	10 $\mu\text{g/day}$ <sup>[1]</sup>
Cadmium	<LOQ $\mu\text{g/serving}$	<LOQ $\mu\text{g/g}$	4.1 $\mu\text{g/day}$ <sup>[1]</sup>
Lead	<LOQ $\mu\text{g/serving}$	<LOQ $\mu\text{g/g}$	6 $\mu\text{g/day}$ <sup>[1]</sup>
Mercury	<LOQ $\mu\text{g/serving}$	<LOQ $\mu\text{g/g}$	2 $\mu\text{g/day}$ <sup>[1]</sup>

PESTICIDES	REGULATORY ACTION LEVEL
None of the other 59 pesticides tested found above limit of detection in the sample.	10 ppb <sup>[1]</sup>

RESIDUAL SOLVENTS	Results	REGULATORY ACTION LEVEL
Ethanol	<LOQ $\mu\text{g/g}$	50,000 mg/day
Heptane	<LOQ $\mu\text{g/g}$	50,000 mg/day

None of the 34 residual solvents tested found above limit of quantitation in the sample.

MICROBIAL	PASS/FAIL
Yeast & Mold	Pass
Coliform	Pass
Water Activity	Pass

TERPENES	% OF SAMPLE
Farnesene	0.0866 %
$\beta$ -Caryophyllene	0.0881 %
$\alpha$ -Bisabolol	0.0436 %
Guaiol	0.0357 %
Humulene	0.0424 %
Caryophyllene Oxide	0.0550 %



1. American Herbal Pharmacopoeia, (2014). Cannabis Inflorescence: Standards of Identity, Analysis, and Quality Control. Washington DC: AHP.



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



**Report Number:** 23-005023/D007.R000  
**Report Date:** 05/03/2023  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/25/23 15:43

**Customer:** Etz Hayim Holdings  
**Product identity:** FORM-TN.O.FS50-FD35  
**Client/Metric ID:** .  
**Laboratory ID:** 23-005023-0003

**Summary**

**Potency:**

Analyte per 1g	Result	Limits	Units	Status	
CBC per 1g	4.31		mg/1g		CBD-Total per Serving Size 58.2 mg/1g
CBD per 1g	58.2		mg/1g		
CBDV per 1g	0.880		mg/1g		THC-Total per Serving Size 2.03 mg/1g
CBE per 1g	0.790		mg/1g		(Reported in milligrams per serving)
CBG per 1g	2.18		mg/1g		
CBL per 1g	0.255		mg/1g		
CBN per 1g	0.0669		mg/1g		
CBT per 1g	1.28		mg/1g		
Δ9-THC per 1g	2.03		mg/1g		

**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
β-Caryophyllene	0.0881	23.25%	farnesene	0.0866	22.85%
(-)-caryophyllene oxide	0.0550	14.51%	α-Bisabolol	0.0436	11.50%
Humulene	0.0424	11.19%	(-)-Guaiol	0.0357	9.42%
β-Myrcene	0.0275	7.26%	<b>Total Terpenes</b>	<b>0.379</b>	<b>100.00%</b>

**Metals:**

Less than LOQ for all analytes.

**Microbiology:**

Less than LOQ for all analytes.



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



**Report Number:** 23-005023/D007.R000  
**Report Date:** 05/03/2023  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/25/23 15:43

**Customer:** Etz Hayim Holdings  
 16427 NE Airport Way  
 PORTLAND 97230  
 United States of America (USA)  
**Product identity:** FORM-TN.O.FS50-FD35  
**Client/Metric ID:** .  
**Sample Date:**  
**Laboratory ID:** 23-005023-0003  
**Evidence of Cooling:** No  
**Temp:** 22.3  
**Relinquished by:** courier  
**Serving Size #1:** 1 g

### Sample Results

Potency per 1g					
Method: J AOAC 2015 V98-6 (mod) <sup>p</sup>		Units mg/se		Batch: 2306839	
				Analyze: 4/27/23 8:06:00 PM	
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 1g	4.31		mg/1g	0.0310	
CBC-A per 1g	< LOQ		mg/1g	0.0310	
CBC-Total per 1g	4.31		mg/1g	0.0582	
CBD per 1g	58.2		mg/1g	0.310	
CBD-A per 1g	< LOQ		mg/1g	0.0310	
CBD-Total per 1g	58.2		mg/1g	0.337	
CBDV per 1g	0.880		mg/1g	0.0310	
CBDV-A per 1g	< LOQ		mg/1g	0.0310	
CBDV-Total per 1g	0.880		mg/1g	0.0579	
CBE per 1g	0.790		mg/1g	0.0310	
CBG per 1g	2.18		mg/1g	0.0310	
CBG-A per 1g	< LOQ		mg/1g	0.0310	
CBG-Total per 1g	2.18		mg/1g	0.0579	
CBL per 1g	0.255		mg/1g	0.0310	
CBL-A per 1g	< LOQ		mg/1g	0.0310	
CBL-Total per 1g	0.255		mg/1g	0.0582	
CBN per 1g	0.0669		mg/1g	0.0310	
CBT per 1g	1.28		mg/1g	0.0310	
Δ8-THCV per 1g	< LOQ		mg/1g	0.0310	
Δ10-THC-9R per 1g	< LOQ		mg/1g	0.0310	
Δ10-THC-9S per 1g	< LOQ		mg/1g	0.0310	
Δ10-THC-Total per 1g	< LOQ		mg/1g	0.0620	
Δ8-THC per 1g	< LOQ		mg/1g	0.0310	
Δ9-THC per 1g	2.03		mg/1g	0.0310	
exo-THC per 1g	< LOQ		mg/1g	0.0310	
THC-A per 1g	< LOQ		mg/1g	0.0310	
THC-Total per 1g	2.03		mg/1g	0.0582	
THCV per 1g	< LOQ		mg/1g	0.0310	
THCV-A per 1g	< LOQ		mg/1g	0.0310	
THCV-Total per 1g	< LOQ		mg/1g	0.0582	

[www.columbialaboratories.com](http://www.columbialaboratories.com)  
 Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.  
 Testing in accordance with: OAR 333-007-0430



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



**Report Number:** 23-005023/D007.R000  
**Report Date:** 05/03/2023  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/25/23 15:43

Potency per 1g      **Method:** J AOAC 2015 V98-6 (mod)<sup>b</sup>      **Units mg/se** **Batch:** 2306839      **Analyze:** 4/27/23 8:06:00 PM

Analyte	Result	Limits	Units	LOQ	Notes
Total Cannabinoids per 1g	70.0		mg/1g		

**Microbiology**

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2306721	04/28/23 AOAC 991.14 (Petrifilm) <sup>b</sup>		
Total Coliforms	< LOQ		cfu/g	10	2306721	04/28/23 AOAC 991.14 (Petrifilm) <sup>b</sup>		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2306722	04/29/23 AOAC 2014.05 (RAPID) <sup>b</sup>		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2306722	04/29/23 AOAC 2014.05 (RAPID) <sup>b</sup>		

**Solvents**      **Method:** Residual Solvents by GC/MS<sup>b</sup>      **Units** µg/g      **Batch** 2306903      **Analyze** 05/02/23 09:50 AM

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		Ethanol	< LOQ		200		
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							



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



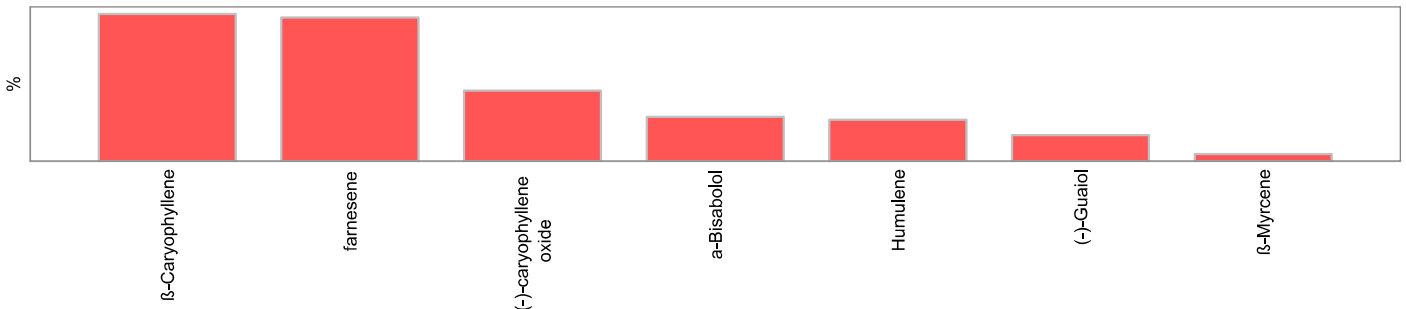
**Report Number:** 23-005023/D007.R000  
**Report Date:** 05/03/2023  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/25/23 15:43

Pesticides											
Method: AOAC 2007.01 & EN 15662 (mod) <sup>p</sup>											
Units mg/kg Batch 2306806 Analyze 04/28/23 06:52 AM											
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin <sup>‡</sup>	< LOQ	0.50	0.250	pass		Acephate <sup>‡</sup>	< LOQ	0.40	0.200	pass	
Acequinocyl <sup>‡</sup>	< LOQ	2.0	1.00	pass		Acetamidrid <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Aldicarb <sup>‡</sup>	< LOQ	0.40	0.200	pass		Azoxystrobin <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Bifenazate <sup>‡</sup>	< LOQ	0.20	0.100	pass		Bifenthrin <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Boscalid <sup>‡</sup>	< LOQ	0.40	0.200	pass		Carbaryl <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Carbofuran <sup>‡</sup>	< LOQ	0.20	0.100	pass		Chlorantraniliprole <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Chlorfenapyr <sup>‡</sup>	< LOQ	1.0	0.500	pass		Chlorpyrifos <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Clofentezine <sup>‡</sup>	< LOQ	0.20	0.100	pass		Cyfluthrin <sup>‡</sup>	< LOQ	1.0	0.500	pass	
Cypermethrin <sup>‡</sup>	< LOQ	1.0	0.500	pass		Daminozide <sup>‡</sup>	< LOQ	1.0	0.500	pass	
Diazinon <sup>‡</sup>	< LOQ	0.20	0.100	pass		Dichlorvos <sup>‡</sup>	< LOQ	1.0	0.500	pass	
Dimethoate <sup>‡</sup>	< LOQ	0.20	0.100	pass		Ethoprophos <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Etofenprox <sup>‡</sup>	< LOQ	0.40	0.200	pass		Etoazole <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Fenoxycarb <sup>‡</sup>	< LOQ	0.20	0.100	pass		Fenpyroximate <sup>‡</sup>	< LOQ	0.40	0.200	pass	
Fipronil <sup>‡</sup>	< LOQ	0.40	0.200	pass		Fonicamid <sup>‡</sup>	< LOQ	1.0	0.400	pass	
Fludioxonil <sup>‡</sup>	< LOQ	0.40	0.200	pass		Hexythiazox <sup>‡</sup>	< LOQ	1.0	0.400	pass	
Imazalil <sup>‡</sup>	< LOQ	0.20	0.100	pass		Imidacloprid <sup>‡</sup>	< LOQ	0.40	0.200	pass	
Kresoxim-methyl <sup>‡</sup>	< LOQ	0.40	0.200	pass		Malathion <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Metalaxyl <sup>‡</sup>	< LOQ	0.20	0.100	pass		Methiocarb <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Methomyl <sup>‡</sup>	< LOQ	0.40	0.200	pass		MGK-264 <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Myclobutanil <sup>‡</sup>	< LOQ	0.20	0.100	pass		Naled <sup>‡</sup>	< LOQ	0.50	0.250	pass	
Oxamyl <sup>‡</sup>	< LOQ	1.0	0.500	pass		Pacllobutrazole <sup>‡</sup>	< LOQ	0.40	0.200	pass	
Parathion-Methyl <sup>‡</sup>	< LOQ	0.20	0.100	pass		Permethrin <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Phosmet <sup>‡</sup>	< LOQ	0.20	0.100	pass		Piperonyl butoxide <sup>‡</sup>	< LOQ	2.0	1.00	pass	
Prallethrin <sup>‡</sup>	< LOQ	0.20	0.100	pass		Propiconazole <sup>‡</sup>	< LOQ	0.40	0.200	pass	
Propoxur <sup>‡</sup>	< LOQ	0.20	0.100	pass		Pyrethrin I (total) <sup>‡</sup>	< LOQ	1.0	0.500	pass	
Pyridaben <sup>‡</sup>	< LOQ	0.20	0.100	pass		Spinosad <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Spiromesifen <sup>‡</sup>	< LOQ	0.20	0.100	pass		Spirotetramat <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Spiroxamine <sup>‡</sup>	< LOQ	0.40	0.200	pass		Tebuconazole <sup>‡</sup>	< LOQ	0.40	0.200	pass	
Thiacloprid <sup>‡</sup>	< LOQ	0.20	0.100	pass		Thiamethoxam <sup>‡</sup>	< LOQ	0.20	0.100	pass	
Trifloxystrobin <sup>‡</sup>	< LOQ	0.20	0.100	pass							

[www.columbialaboratories.com](http://www.columbialaboratories.com)  
 Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.  
 Testing in accordance with: OAR 333-007-0390 OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430



Terpenes					Method: J AOAC 2015 V98-6	Units %	Batch 2306876	Analyze 04/28/23	04:48 PM	
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes	
β-Caryophyllene	0.0881	0.019	23.2454%		farnesene	0.0866	0.019	22.8496%		
(-)-caryophyllene oxide	0.0550	0.019	14.5119%		α-Bisabolol	0.0436	0.019	11.5040%		
Humulene	0.0424	0.019	11.1873%		(-)-Guaiaol	0.0357	0.019	9.4195%		
β-Myrcene	0.0275	0.019	7.2559%		(R)-(+)-Limonene	< LOQ	0.019	0.00%		
valencene	< LOQ	0.019	0.00%		(±)-trans-Nerolidol	< LOQ	0.019	0.00%		
(+)-fenchol	< LOQ	0.019	0.00%		trans-β-Ocimene	< LOQ	0.013	0.00%		
(+)-Borneol	< LOQ	0.019	0.00%		(±)-cis-Nerolidol	< LOQ	0.019	0.00%		
Geraniol	< LOQ	0.019	0.00%		(±)-Camphor	< LOQ	0.019	0.00%		
(±)-fenchone	< LOQ	0.019	0.00%		Eucalyptol	< LOQ	0.019	0.00%		
(-)-β-Pinene	< LOQ	0.019	0.00%		α-pinene	< LOQ	0.019	0.00%		
(-)-α-Terpineol	< LOQ	0.019	0.00%		(-)-Isopulegol	< LOQ	0.019	0.00%		
(+)-Cedrol	< LOQ	0.019	0.00%		(+)-Pulegone	< LOQ	0.019	0.00%		
α-cedrene	< LOQ	0.019	0.00%		α-phellandrene	< LOQ	0.019	0.00%		
α-Terpinene	< LOQ	0.019	0.00%		Camphene	< LOQ	0.019	0.00%		
cis-β-Ocimene	< LOQ	0.006	0.00%		d-3-Carene	< LOQ	0.019	0.00%		
γ-Terpinene	< LOQ	0.019	0.00%		Geranyl acetate	< LOQ	0.019	0.00%		
Isoborneol	< LOQ	0.019	0.00%		Linalool	< LOQ	0.019	0.00%		
Menthol	< LOQ	0.019	0.00%		nerol	< LOQ	0.019	0.00%		
p-Cymene	< LOQ	0.019	0.00%		Sabinene	< LOQ	0.019	0.00%		
Sabinene hydrate	< LOQ	0.019	0.00%		Terpinolene	< LOQ	0.019	0.00%		
<b>Total Terpenes</b>	<b>0.379</b>									



Metals									
Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method		Status	Notes
Arsenic <sup>‡</sup>	< LOQ	0.200	mg/kg	0.0976	2306881	05/01/23	AOAC 2013.06 (mod.) <sup>b</sup>	pass	
Cadmium <sup>‡</sup>	< LOQ	0.200	mg/kg	0.0976	2306881	05/01/23	AOAC 2013.06 (mod.) <sup>b</sup>	pass	
Lead <sup>‡</sup>	< LOQ	0.500	mg/kg	0.0976	2306881	05/01/23	AOAC 2013.06 (mod.) <sup>b</sup>	pass	
Mercury <sup>‡</sup>	< LOQ	0.100	mg/kg	0.0488	2306881	05/01/23	AOAC 2013.06 (mod.) <sup>b</sup>	pass	



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



**Report Number:** 23-005023/D007.R000  
**Report Date:** 05/03/2023  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/25/23 15:43

**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.

Ⓟ = ISO/IEC 17025:2017 accredited method.

\* = TNI accredited analyte.

**Units of Measure**

cfu/g = Colony forming units per gram

g = g

µg/g = Microgram per gram

mg/kg = Milligram per kilogram = parts per million (ppm)

mg/1g = Milligram per 1g

% = Percentage of sample

% wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner  
General Manager





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



Report Number: 23-005023/D007.R000  
 Report Date: 05/03/2023  
 ORELAP#: OR100028  
 Purchase Order:  
 Received: 04/25/23 15:43

Revision: 3 Document ID: 3120  
 Legacy ID: CFL-C21 Worksheet Validated 10/30/2020

Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662		Units: mg/Kg			Batch ID: 2306806			
Method Blank		Laboratory Control Sample						
Analyte	Blank Result	Blank Limits	Notes	LCS Result	LCS Spike	LCS % Rec	Limits	Notes
Abamectin	0.000	< 0.250		0.890	1.000	89.0	50.0 150	
Acephate	0.000	< 0.200		0.769	0.800	96.2	60.0 120	
Acequinocyl	0.000	< 1.000		3.716	4.000	92.9	40.0 160	
Acetamiprid	0.000	< 0.100		0.373	0.400	93.3	60.0 120	
Aldicarb	0.000	< 0.200		0.752	0.800	94.0	60.0 120	
Azoxystrobin	0.000	< 0.100		0.360	0.400	90.0	60.0 120	
Bifenazate	0.000	< 0.100		0.393	0.400	98.3	60.0 120	
Bifenthrin	0.000	< 0.100		0.395	0.400	98.8	50.0 150	
Boscalid	0.000	< 0.200		0.737	0.800	92.2	60.0 120	
Carbaryl	0.000	< 0.100		0.395	0.400	98.8	60.0 120	
Carbofuran	0.000	< 0.100		0.374	0.400	93.5	60.0 120	
Chlorantraniliprole	0.000	< 0.100		0.373	0.400	93.3	60.0 120	
Chlorfenapyr	0.000	< 0.500		1.879	2.000	93.9	60.0 120	
Chlorpyrifos	0.000	< 0.100		0.368	0.400	92.0	60.0 120	
Clofentezine	0.000	< 0.100		0.359	0.400	89.7	60.0 120	
Cyfluthrin	0.000	< 0.500		1.874	2.000	93.7	50.0 150	
Cypermethrin	0.000	< 0.500		2.003	2.000	100.2	50.0 150	
Daminozide	0.179	< 0.500		0.634	2.000	31.7	60.0 120	Q6
Diazinon	0.000	< 0.100		0.377	0.400	94.3	60.0 120	
Dichlorvos	0.000	< 0.500		1.784	2.000	89.2	60.0 120	
Dimethoate	0.000	< 0.100		0.402	0.400	100.5	60.0 120	
Ethoprophos	0.000	< 0.100		0.363	0.400	90.7	60.0 120	
Etofenprox	0.000	< 0.200		0.787	0.800	98.4	50.0 150	
Etoxazole	0.000	< 0.100		0.386	0.400	96.6	60.0 120	
Fenoxycarb	0.000	< 0.100		0.386	0.400	96.6	60.0 120	
Fenpyroximate	0.000	< 0.200		0.784	0.800	98.0	60.0 120	
Fipronil	0.000	< 0.200		0.784	0.800	98.0	60.0 120	
Flonicamid	0.000	< 0.250		0.972	1.000	97.2	60.0 120	
Fludioxonil	0.000	< 0.200		0.783	0.800	97.9	50.0 150	
Hexythiazox	0.000	< 0.250		0.960	1.000	96.0	60.0 120	
Imazalil	0.000	< 0.100		0.380	0.400	95.0	60.0 120	
Imidacloprid	0.000	< 0.200		0.768	0.800	96.0	60.0 120	
Kresoxim-methyl	0.000	< 0.200		0.788	0.800	98.5	60.0 120	
Malathion	0.000	< 0.100		0.387	0.400	96.8	60.0 120	
Metasul	0.000	< 0.100		0.369	0.400	92.4	60.0 120	
Methiocarb	0.000	< 0.100		0.382	0.400	95.4	60.0 120	
Methomyl	0.000	< 0.200		0.837	0.800	104.7	60.0 120	
MiK-264	0.000	< 0.100		0.369	0.400	92.2	50.0 150	
Myclobutanil	0.000	< 0.100		0.390	0.400	97.6	60.0 120	
Naled	0.000	< 0.250		0.973	1.000	97.3	50.0 150	
Oxamyl	0.000	< 0.500		2.102	2.000	105.1	60.0 120	
Paclobutrazole	0.000	< 0.200		0.707	0.800	88.3	60.0 120	
Parathion-Methyl	0.000	< 0.100		0.304	0.400	76.1	50.0 150	
Permethrin	0.000	< 0.100		0.392	0.400	97.9	50.0 150	
Phosmet	0.000	< 0.100		0.377	0.400	94.3	50.0 150	
Piperonyl butoxide	0.000	< 0.500		1.907	2.000	95.4	60.0 120	
Prallethrin	0.000	< 0.100		0.383	0.400	95.7	60.0 120	
Propiconazole	0.000	< 0.200		0.759	0.800	94.9	60.0 120	
Propoxur	0.000	< 0.100		0.399	0.400	99.6	60.0 120	
Pyrethrin (Summe)	0.000	< 0.100		0.423	0.488	86.7	60.0 120	
Pyridaben	0.000	< 0.100		0.380	0.400	95.1	50.0 150	
Spirosad	0.000	< 0.100		0.379	0.388	97.7	50.0 150	
Spiromesifen	0.000	< 0.100		0.388	0.400	97.0	60.0 120	
Spirotetramat	0.000	< 0.100		0.368	0.400	92.0	60.0 120	
Spiroxamine	0.000	< 0.200		0.751	0.800	93.9	60.0 120	
Tebuconazole	0.000	< 0.200		0.765	0.800	95.6	60.0 120	
Thiadoprid	0.000	< 0.100		0.386	0.400	96.5	60.0 120	
Thiamethoxam	0.000	< 0.100		0.406	0.400	101.5	60.0 120	
Trifloxystrobin	0.000	< 0.100		0.377	0.400	94.3	60.0 120	





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



Report Number: 23-005023/D007.R000  
 Report Date: 05/03/2023  
 ORELAP#: OR100028  
 Purchase Order:  
 Received: 04/25/23 15:43

Revision: 3 Document ID: 3120  
 Legacy ID: CFL-C21 Worksheet Validated 10/30/2020

Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662		Units: mg/Kg					Batch ID: 2306806				
Matrix Spike/Matrix Spike Duplicate Recoveries		Sample ID: 23-004904-0004									
Analyte	Result	MS Res	MSD Res	Spike	RPD%	Limit	MS % Rec	MSD % Rec	Limits	Notes	
Abamectin	0.000	0.930	0.919	1.000	1.2%	< 30	93.0%	91.9%	50 - 150		
Acephate	0.000	0.757	0.781	0.800	3.2%	< 30	94.6%	97.7%	50 - 150		
Acetamiprid	0.000	3.744	3.621	4.000	3.4%	< 30	93.6%	90.5%	50 - 150		
Acetamiprid	0.000	0.389	0.382	0.400	1.9%	< 30	97.3%	95.5%	50 - 150		
Aldicarb	0.000	0.790	0.766	0.800	3.1%	< 30	98.7%	95.7%	50 - 150		
Azoxystrobin	0.000	0.361	0.356	0.400	1.5%	< 30	90.3%	88.9%	50 - 150		
Bifenazate	0.000	0.384	0.389	0.400	1.3%	< 30	96.1%	97.3%	50 - 150		
Bifenthrin	0.000	0.401	0.384	0.400	4.2%	< 30	100.1%	96.0%	50 - 150		
Boscalid	0.000	0.752	0.727	0.800	3.4%	< 30	94.0%	90.9%	50 - 150		
Carbaryl	0.000	0.406	0.389	0.400	4.3%	< 30	101.5%	97.3%	50 - 150		
Carbofuran	0.000	0.411	0.381	0.400	7.4%	< 30	102.6%	95.3%	50 - 150		
Chlorantraniliprole	0.000	0.397	0.383	0.400	3.5%	< 30	99.2%	95.8%	50 - 150		
Chlorfenapyr	0.000	1.848	1.792	2.000	3.1%	< 30	92.4%	89.6%	50 - 150		
Chlorpyrifos	0.000	0.373	0.375	0.400	0.4%	< 30	93.3%	93.7%	50 - 150		
Clofentezine	0.000	0.324	0.335	0.400	3.5%	< 30	80.9%	83.7%	50 - 150		
Cyfluthrin	0.000	1.930	1.873	2.000	3.0%	< 30	96.5%	93.7%	30 - 150		
Cypermethrin	0.000	2.084	2.065	2.000	0.9%	< 30	104.2%	103.3%	50 - 150		
Daminozide	0.000	0.698	0.701	2.000	0.4%	< 30	34.9%	35.0%	30 - 150		
Diazinon	0.000	0.400	0.390	0.400	2.5%	< 30	100.0%	97.5%	50 - 150		
Dichlorvos	0.000	1.654	1.670	2.000	1.0%	< 30	82.7%	83.5%	50 - 150		
Dimethoate	0.000	0.412	0.403	0.400	2.3%	< 30	103.1%	100.8%	50 - 150		
Ethoprophos	0.000	0.378	0.377	0.400	0.2%	< 30	94.5%	94.3%	50 - 150		
Etofenprox	0.000	0.809	0.792	0.800	2.1%	< 30	101.1%	99.0%	50 - 150		
Etoxazole	0.000	0.379	0.380	0.400	0.2%	< 30	94.7%	94.9%	50 - 150		
Fenoxycarb	0.000	0.383	0.367	0.400	4.4%	< 30	95.9%	91.7%	50 - 150		
Fenpyroximate	0.000	0.823	0.811	0.800	1.5%	< 30	102.9%	101.3%	50 - 150		
Fipronil	0.000	0.803	0.786	0.800	2.1%	< 30	100.4%	98.3%	50 - 150		
Flonicamid	0.000	1.004	0.992	1.000	1.3%	< 30	100.4%	99.2%	50 - 150		
Fludioxonil	0.000	0.777	0.747	0.800	3.9%	< 30	97.2%	93.4%	50 - 150		
Hexythiazox	0.000	0.972	0.953	1.000	2.0%	< 30	97.2%	95.3%	50 - 150		
Imazalil	0.000	0.394	0.376	0.400	4.8%	< 30	98.6%	93.9%	50 - 150		
Imidacloprid	0.000	0.790	0.755	0.800	4.4%	< 30	98.7%	94.4%	50 - 150		
Kresoxim-methyl	0.000	0.748	0.758	0.800	1.3%	< 30	93.5%	94.7%	50 - 150		
Malathion	0.000	0.400	0.388	0.400	3.1%	< 30	100.1%	97.0%	50 - 150		
Metasulxyl	0.000	0.376	0.369	0.400	2.1%	< 30	94.1%	92.2%	50 - 150		
Methiocarb	0.000	0.395	0.380	0.400	3.9%	< 30	98.8%	95.1%	50 - 150		
Methomyl	0.000	0.822	0.854	0.800	3.8%	< 30	102.8%	106.8%	50 - 150		
MiGK-264	0.000	0.356	0.340	0.400	4.5%	< 30	89.0%	85.1%	50 - 150		
Myclobutanil	0.000	0.378	0.377	0.400	0.2%	< 30	94.5%	94.4%	50 - 150		
Naled	0.000	0.991	0.975	1.000	1.7%	< 30	99.1%	97.5%	50 - 150		
Oxamyl	0.000	1.590	1.918	2.000	18.7%	< 30	79.5%	95.9%	50 - 150		
Paclobutrazole	0.000	0.729	0.743	0.800	1.8%	< 30	91.1%	92.8%	50 - 150		
Parathion-Methyl	0.000	0.325	0.354	0.400	8.5%	< 30	81.3%	88.5%	30 - 150		
Permethrin	0.000	0.395	0.386	0.400	2.1%	< 30	98.6%	96.6%	50 - 150		
Phosmet	0.000	0.381	0.361	0.400	5.5%	< 30	95.3%	90.2%	50 - 150		
Piperonyl butoxide	0.000	2.012	1.906	2.000	5.4%	< 30	100.6%	95.3%	50 - 150		
Prallethrin	0.000	0.393	0.380	0.400	3.5%	< 30	98.3%	94.9%	50 - 150		
Propiconazole	0.000	0.761	0.748	0.800	1.8%	< 30	95.2%	93.5%	50 - 150		
Propoxur	0.000	0.403	0.397	0.400	1.5%	< 30	100.7%	99.2%	50 - 150		
Pyrethrin (Summe)	0.000	0.407	0.417	0.488	2.4%	< 30	83.4%	85.5%	50 - 150		
Pyridaben	0.000	0.378	0.366	0.400	3.3%	< 30	94.6%	91.5%	50 - 150		
Spinosad	0.000	0.385	0.377	0.388	2.1%	< 30	99.3%	97.2%	50 - 150		
Spiromesifen	0.000	0.390	0.398	0.400	2.1%	< 30	97.5%	99.6%	50 - 150		
Spirotetramat	0.000	0.374	0.370	0.400	1.2%	< 30	93.6%	92.5%	50 - 150		
Spiroxamine	0.000	0.760	0.736	0.800	3.3%	< 30	95.0%	92.0%	50 - 150		
Tebuconazole	0.000	0.786	0.766	0.800	2.6%	< 30	98.3%	95.7%	50 - 150		
Thiadoprid	0.000	0.402	0.391	0.400	2.8%	< 30	100.5%	97.7%	50 - 150		
Thiamethoxam	0.000	0.404	0.389	0.400	3.9%	< 30	101.1%	97.2%	50 - 150		
Trifloxystrobin	0.000	0.394	0.385	0.400	2.2%	< 30	98.4%	96.3%	50 - 150		



Revision: 1 Document ID: 7148  
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

JAOAC2015 V98-6 Batch ID: 2306839

Laboratory Control Sample								
Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	2	0.0300	0.030	%	98.3	80.0 - 120	Acceptable	
CBDV	2	0.0292	0.030	%	98.6	80.0 - 120	Acceptable	
CBE	2	0.0328	0.034	%	96.7	80.0 - 120	Acceptable	
CBDA	1	0.0303	0.031	%	97.9	90.0 - 110	Acceptable	
CBGA	1	0.0256	0.026	%	99.5	80.0 - 120	Acceptable	
CBG	1	0.0314	0.031	%	101	80.0 - 120	Acceptable	
CBD	1	0.0274	0.027	%	100.0	90.0 - 110	Acceptable	
THCV	2	0.0214	0.023	%	94.7	80.0 - 120	Acceptable	
d8THCV	2	0.0273	0.027	%	102	80.0 - 120	Acceptable	
THCVA	2	0.0306	0.031	%	97.8	80.0 - 120	Acceptable	
CBN	1	0.0274	0.027	%	102	80.0 - 120	Acceptable	
exo-THC	2	0.0302	0.031	%	98.5	80.0 - 120	Acceptable	
d9THC	1	0.0315	0.031	%	101	90.0 - 110	Acceptable	
d8THC	1	0.0312	0.031	%	99.9	90.0 - 110	Acceptable	
9S-d10THC	1	0.0312	0.031	%	99.1	80.0 - 120	Acceptable	
CBL	2	0.0313	0.032	%	97.1	80.0 - 120	Acceptable	
9R-d10THC	1	0.0302	0.032	%	94.6	80.0 - 120	Acceptable	
CBC	2	0.0299	0.030	%	99.2	80.0 - 120	Acceptable	
THCA	1	0.0355	0.036	%	98.8	90.0 - 110	Acceptable	
CBCA	2	0.0313	0.032	%	96.5	80.0 - 120	Acceptable	
CBLA	2	0.0317	0.032	%	98.5	80.0 - 120	Acceptable	
CBT	2	0.0327	0.033	%	98.8	80.0 - 120	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		
9S-d10THC	<LOQ	0.003	%	< 0.003	Acceptable		
CBL	<LOQ	0.003	%	< 0.003	Acceptable		
9R-d10THC	<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



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



**Report Number:** 23-005023/D007.R000  
**Report Date:** 05/03/2023  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/25/23 15:43

Revision: 1 Document ID: 7148  
 Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

JAOAC2015 V98-6		Batch ID: 2306839						
Sample Duplicate		Sample ID: 23-005023-0003						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBDV	0.0884	0.0880	0.003	%	0.439	< 20	Acceptable	
CBE	0.0792	0.0790	0.003	%	0.227	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBG	0.215	0.218	0.003	%	1.40	< 20	Acceptable	
CBD	5.86	5.82	0.003	%	0.666	< 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	0.0067	0.0067	0.003	%	0.233	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d9THC	0.203	0.203	0.003	%	0.0848	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBL	0.0306	0.0255	0.003	%	18.1	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBC	0.429	0.431	0.003	%	0.315	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBT	0.131	0.128	0.003	%	2.71	< 20	Acceptable	

**Abbreviations**

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

**Units of Measure:**

% - Percent



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



**Report Number:** 23-005023/D007.R000  
**Report Date:** 05/03/2023  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/25/23 15:43

Revision: 1 Document ID: 7086  
 Legacy ID: CFL-E57Worksheet Validated 11/04/2020

Terpenes Quality Control Results

Method Reference: EPA5035				Batch ID: 2306876					
Method Blank				Laboratory Control		Sample			
Analyte	Result	LQ	Notes	Result	LCS	Units	LCS% Rec	Limits	Notes
a-pinene	<LOQ	< 200		447	500	µg/g	89%	70 - 130	
Camphene	<LOQ	< 200		466	500	µg/g	93%	70 - 130	
Sabinene	<LOQ	< 200		446	500	µg/g	89%	70 - 130	
b-Pinene	<LOQ	< 200		442	500	µg/g	88%	70 - 130	
b-Myrcene	<LOQ	< 200		459	500	µg/g	92%	70 - 130	
a-phellandrene	<LOQ	< 200		458	500	µg/g	92%	70 - 130	
d-3-Carene	<LOQ	< 200		456	500	µg/g	91%	70 - 130	
a-Terpinene	<LOQ	< 200		441	500	µg/g	88%	70 - 130	
p-Cymene	<LOQ	< 200		454	500	µg/g	91%	70 - 130	
D-Limonene	<LOQ	< 200		446	500	µg/g	89%	70 - 130	
Eucalyptol	<LOQ	< 200		454	500	µg/g	91%	70 - 130	
b-cis-Çimene	<LOQ	< 67		150	167	µg/g	90%	70 - 130	
b-trans-Çimene	<LOQ	< 133		312	333	µg/g	94%	70 - 130	
g-Terpinene	<LOQ	< 200		435	500	µg/g	87%	70 - 130	
Sabinene_Hydrate	<LOQ	< 200		445	500	µg/g	89%	70 - 130	
Terpinolene	<LOQ	< 200		439	500	µg/g	88%	70 - 130	
D-Fenchone	<LOQ	< 200		437	500	µg/g	87%	70 - 130	
Linalool	<LOQ	< 200		486	500	µg/g	97%	70 - 130	
Fenchol	<LOQ	< 200		455	500	µg/g	91%	70 - 130	
Camphor	<LOQ	< 200		471	500	µg/g	94%	70 - 130	
Isopulego	<LOQ	< 200		488	500	µg/g	98%	70 - 130	
Isoborneol	<LOQ	< 200		482	500	µg/g	96%	70 - 130	
Borneol	<LOQ	< 200		468	500	µg/g	94%	70 - 130	
DL-Menthol	<LOQ	< 200		450	500	µg/g	90%	70 - 130	
Terpineol	<LOQ	< 200		461	500	µg/g	92%	70 - 130	
Nerol	<LOQ	< 200		423	500	µg/g	85%	70 - 130	
Pulegone	<LOQ	< 200		466	500	µg/g	93%	70 - 130	
Geraniol	<LOQ	< 200		449	500	µg/g	90%	70 - 130	
Geranyl_Acetate	<LOQ	< 200		472	500	µg/g	94%	70 - 130	
a-Cedrene	<LOQ	< 200		446	500	µg/g	89%	70 - 130	
b-Caryophyllene	<LOQ	< 200		467	500	µg/g	93%	70 - 130	
a-Humulene	<LOQ	< 200		464	500	µg/g	93%	70 - 130	
Valerene	<LOQ	< 200		434	500	µg/g	87%	70 - 130	
cis-Nerolidol	<LOQ	< 200		495	500	µg/g	99%	70 - 130	
a-Farnesene	<LOQ	< 200		532	500	µg/g	106%	70 - 130	
trans-Nerolidol	<LOQ	< 200		482	500	µg/g	96%	70 - 130	
Caryophyllene_Oxide	<LOQ	< 200		483	500	µg/g	97%	70 - 130	
Guaiol	<LOQ	< 200		484	500	µg/g	97%	70 - 130	
Cedrol	<LOQ	< 200		495	500	µg/g	99%	70 - 130	
a-Bisabolol	<LOQ	< 200		493	500	µg/g	99%	70 - 130	

Definitions

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



Revision: 1 Document ID: 7086  
Legacy ID: CFL-E57Worksheet Validated 11/04/2020

Terpenes Quality Control Results

Method Reference: EPA5035		Batch ID: 2306876					
Sample/ Sample Duplicate		Sample ID: 23-005065-0002					
Analyte	Result	Org. Result	LOQ	Units	% RPD	LIMIT	Notes
a-pinene	37200	37200	199	µg/g	0%	< 20	
Camphene	5250	5250	199	µg/g	0%	< 20	
Sabinene	<LOQ	<LOQ	199	µg/g	0%	< 20	
b-Pinene	36400	36400	199	µg/g	0%	< 20	
b-Myrcene	55500	56500	199	µg/g	2%	< 20	
a-phellandrene	498	520	199	µg/g	4%	< 20	
d-3-Carene	<LOQ	<LOQ	199	µg/g	0%	< 20	
a-Terpinene	751	758	199	µg/g	1%	< 20	
p-Cymene	394	393	199	µg/g	0%	< 20	
D-Limonene	381000	386000	199	µg/g	1%	< 20	
Eucalyptol	4980	5070	199	µg/g	2%	< 20	
b-cis-Cimene	2870	2880	66.3	µg/g	0%	< 20	
b-trans-Cimene	24900	24900	133	µg/g	0%	< 20	
g-Terpinene	1700	1690	199	µg/g	1%	< 20	
Sabinene_Hydrate	<LOQ	<LOQ	199	µg/g	0%	< 20	
Terpinolene	4560	4550	199	µg/g	0%	< 20	
D-Fenchone	1240	1230	199	µg/g	1%	< 20	
Linalool	48100	48700	199	µg/g	1%	< 20	
Fenchol	15800	15800	199	µg/g	0%	< 20	
Camphor	<LOQ	<LOQ	199	µg/g	0%	< 20	
Isopulego	<LOQ	<LOQ	199	µg/g	0%	< 20	
Isoborneol	<LOQ	<LOQ	199	µg/g	0%	< 20	
Borneol	2270	2250	199	µg/g	1%	< 20	
DL-Menthol	<LOQ	<LOQ	199	µg/g	0%	< 20	
Terpineol	8400	8380	199	µg/g	0%	< 20	
Nerol	521	504	199	µg/g	3%	< 20	
Pulegone	<LOQ	<LOQ	199	µg/g	0%	< 20	
Geraniol	851	853	199	µg/g	0%	< 20	
Geranyl_Acetate	4270	4310	199	µg/g	1%	< 20	
a-Cedrene	<LOQ	<LOQ	199	µg/g	0%	< 20	
b-Caryophyllene	163000	162000	199	µg/g	1%	< 20	
a-Humulene	75000	74400	199	µg/g	1%	< 20	
Valerene	<LOQ	<LOQ	199	µg/g	0%	< 20	
cis-Nerolidol	<LOQ	<LOQ	199	µg/g	0%	< 20	
a-Farnesene	63700	62600	199	µg/g	2%	< 20	
trans-Nerolidol	1030	991	199	µg/g	4%	< 20	
Caryophyllene_Oxide	2740	2750	199	µg/g	0%	< 20	
Geraiol	<LOQ	<LOQ	199	µg/g	0%	< 20	
Cedrol	<LOQ	<LOQ	199	µg/g	0%	< 20	
a-Bisabolol	278	271	199	µg/g	3%	< 20	

Definitions

RPD Relative Percent Difference





Revision: 2 Document ID: 7087  
Legacy ID: CFL-E33Effective:

**Laboratory Quality Control Results**

Residual Solvents				Batch ID: 2306903					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		581	584	µg/g	99.5	60	- 120
Isobutane	ND	< 200		734	767	µg/g	95.7	60	- 120
Butane	ND	< 200		779	782	µg/g	99.6	60	- 120
2,2-Dimethylpropane	ND	< 200		1000	939	µg/g	106.5	60	- 120
Methanol	ND	< 200		1430	1610	µg/g	88.8	60	- 120
Ethylene Oxide	ND	< 30		64.2	57.1	µg/g	112.4	60	- 120
2-Methylbutane	ND	< 200		1460	1600	µg/g	91.3	60	- 120
Pentane	ND	< 200		1500	1610	µg/g	93.2	60	- 120
Ethanol	ND	< 200		1430	1600	µg/g	89.4	70	- 130
Ethyl Ether	ND	< 200		1460	1610	µg/g	90.7	60	- 120
2,2-Dimethylbutane	ND	< 30		158	173	µg/g	91.3	60	- 120
Acetone	ND	< 200		1450	1620	µg/g	89.5	60	- 120
2-Propanol	ND	< 200		1430	1600	µg/g	89.4	60	- 120
Ethyl Formate	ND	< 500		1570	1610	µg/g	97.5	70	- 130
Acetonitrile	ND	< 100		420	488	µg/g	86.1	60	- 120
Methyl Acetate	ND	< 500		1430	1610	µg/g	88.8	70	- 130
2,3-Dimethylbutane	ND	< 30		155	165	µg/g	93.9	60	- 120
Dichloromethane	ND	< 60		475	487	µg/g	97.5	60	- 120
2-Methylpentane	ND	< 30		156	160	µg/g	97.5	60	- 120
MTBE	ND	< 500		1510	1600	µg/g	94.4	70	- 130
3-Methylpentane	ND	< 30		139	161	µg/g	86.3	60	- 120
Hexane	ND	< 30		141	162	µg/g	87.0	60	- 120
1-Propanol	ND	< 500		1560	1620	µg/g	96.3	70	- 130
Methylethylketone	ND	< 500		1510	1610	µg/g	93.8	70	- 130
Ethyl acetate	ND	< 200		1400	1600	µg/g	87.5	60	- 120
2-Butanol	ND	< 200		1420	1610	µg/g	88.2	60	- 120
Tetrahydrofuran	ND	< 100		433	483	µg/g	89.6	60	- 120
Cyclohexane	ND	< 200		1450	1610	µg/g	90.1	60	- 120
2-methyl-1-propanol	ND	< 500		1580	1630	µg/g	96.9	70	- 130
Benzene	ND	< 1		4.67	4.98	µg/g	93.8	60	- 120
Isopropyl Acetate	ND	< 200		1430	1610	µg/g	88.8	60	- 120
Heptane	ND	< 200		1440	1620	µg/g	88.9	60	- 120
1-Butanol	ND	< 500		1620	1600	µg/g	101.3	70	- 130
Propyl Acetate	ND	< 500		1560	1620	µg/g	96.3	70	- 130
1,4-Dioxane	ND	< 100		407	494	µg/g	82.4	60	- 120
2-Ethoxyethanol	ND	< 30		155	165	µg/g	93.9	60	- 120
Methylisobutylketone	ND	< 500		1850	1610	µg/g	114.9	70	- 130
3-Methyl-1-butanol	ND	< 500		1590	1610	µg/g	98.8	70	- 130
Ethylene Glycol	ND	< 200		384	486	µg/g	79.0	60	- 120
Toluene	ND	< 100		416	513	µg/g	81.1	60	- 120
Isobutyl Acetate	ND	< 500		1600	1600	µg/g	100.0	70	- 130
1-Pentanol	ND	< 500		1660	1610	µg/g	103.1	70	- 130
Butyl Acetate	ND	< 500		1630	1610	µg/g	101.2	70	- 130
Ethylbenzene	ND	< 200		810	967	µg/g	83.8	60	- 120
m,p-Xylene	ND	< 200		815	994	µg/g	82.0	60	- 120
o-Xylene	ND	< 200		808	992	µg/g	81.5	60	- 120
Cumene	ND	< 30		132	171	µg/g	77.2	60	- 120
Anisole	ND	< 500		1680	1610	µg/g	104.3	70	- 130
DMSO	ND	< 500		1850	1610	µg/g	114.9	70	- 130
1,2-dimethoxyethane	ND	< 50		166	172	µg/g	96.5	70	- 130
Triethylamine	ND	< 500		1740	1620	µg/g	107.4	70	- 130
N,N-dimethylformamide	ND	< 150		532	499	µg/g	106.6	70	- 130
N,N-dimethylacetamide	ND	< 150		599	491	µg/g	122.0	70	- 130
Pyridine	ND	< 50		172	171	µg/g	100.6	70	- 130
Sulfolane	ND	< 50		204	160	µg/g	127.5	70	- 130
1,2-Dichloroethane	ND	< 1		0.662	1	µg/g	66.2	70	- 130 Q6
Chloroform	ND	< 1		0.734	1	µg/g	73.4	70	- 130
Trichloroethylene	ND	< 1		0.761	1	µg/g	76.1	70	- 130
1,1-Dichloroethane	ND	< 1		0.71	1	µg/g	71.0	70	- 130

QC - Sample Duplicate

Sample ID: 23-005006-0001





Revision: 2 Document ID: 7087  
Legacy ID: CFL-E33Effective:

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	
Ethyl Formate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Acetonitrile	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Methyl Acetate	ND	ND	500	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	
MIBK	ND	ND	500	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	
1-Propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Methyl ethyl ketone	ND	ND	500	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	
2-methyl-1-propanol	ND	ND	500	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-Butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Propyl Acetate	ND	ND	500	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	
Methylisobutylketone	ND	ND	500	µg/g	0.0	< 20	Acceptable	
3-Methyl-1-butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylene Glycol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Toluene	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Isobutyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1-Pentanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Butyl Acetate	ND	ND	500	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	
Anisole	ND	ND	500	µg/g	0.0	< 20	Acceptable	
DMSO	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,2-dimethoxyethane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Triethylamine	ND	ND	500	µg/g	0.0	< 20	Acceptable	
N,N-dimethylformamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
N,N-dimethylacetamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
Pyridine	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Sulfolane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
1,2-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Chloroform	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Trichloroethylene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
1,1-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	

**Abbreviations**

ND - None Detected at or above MRL  
RPD - Relative Percent Difference  
LOQ - Limit of Quantitation  
Q6 - Quality control outside QC limits. Data acceptable based on remaining QC.

**Units of Measure:**

µg/g - Microgram per gram or ppm



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



**Report Number:** 23-005023/D007.R000  
**Report Date:** 05/03/2023  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/25/23 15:43





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	Quantitation 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.