



This report cannot be used for OHA or OLCC compliance requirements.

Customer: Sovereign Medicinals Inc
4207 SE Woodstock Blvd #507
Portland, Oregon 97206
United States

Product identity: Vital Leaf CBD Mini Quinoa Chocolate Bar - UPC 703624910013 - Batch 18225
Client/Metric ID: .
Sample Date: 09/11/18
Laboratory ID: 18-007665-0001
Relinquished by: Tom Deja
Temp: 19.7 °C
Weight Received: 15.87 g
Serving Size #1: 15.87 g

Sample Results

Potency per 15.87g		Batch: 1805417					
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBC per 15.87g [†]	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
CBC-A per 15.87g [†]	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
CBC-Total per 15.87g [†]	< LOQ		mg/15.87g	1.49	09/17/18	J AOAC 2015 V98-6	
CBD per 15.87g	32.4		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
CBD-A per 15.87g	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
CBD-Total per 15.87g	32.4		mg/15.87g	1.49	09/17/18	J AOAC 2015 V98-6	
CBDV per 15.87g [†]	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
CBDV-A per 15.87g [†]	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
CBDV-Total per 15.87g [†]	< LOQ		mg/15.87g	1.48	09/17/18	J AOAC 2015 V98-6	
CBG per 15.87g [†]	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
CBG-A per 15.87g [†]	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
CBG-Total per 15.87g [†]	< LOQ		mg/15.87g	1.49	09/17/18	J AOAC 2015 V98-6	
CBL per 15.87g [†]	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
CBN per 15.87g	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
D8THC per 15.87g [†]	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
THC per 15.87g	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
THC-A per 15.87g	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
THC-Total per 15.87g	< LOQ	5.00	mg/15.87g	1.49	09/17/18	J AOAC 2015 V98-6	
THCV per 15.87g [†]	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
THCV-A per 15.87g [†]	< LOQ		mg/15.87g	0.793	09/17/18	J AOAC 2015 V98-6	
THCV-Total per 15.87g [†]	< LOQ		mg/15.87g	1.48	09/17/18	J AOAC 2015 V98-6	

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 Pixis 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 kept a maximum of 15 days from the report date unless prior arrangements have been made.



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Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220

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.

Units of Measure

- g = Gram
- mg/15.87g = Milligram per 15.87g
- % = Percentage of sample
- % wt = $\mu\text{g/g}$ divided by 10,000

Glossary of Qualifiers

† = Analyte not NELAP accredited.

Approved Signatory

Derrick Tanner
General Manager



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Laboratory Quality Control Results

J AOAC 2015 V98-6 **Batch ID: 1805417**

Laboratory Control Sample								
Analyte	Result	Spike	Units	% Rec	Limits	Evaluation	Notes	
CBDV-A	0.00927	0.01	%	92.7	85 - 115	Acceptable		
CBDV	0.00973	0.01	%	97.3	85 - 115	Acceptable		
CBD-A	0.00899	0.01	%	89.9	85 - 115	Acceptable		
CBG-A	0.00908	0.01	%	90.8	85 - 115	Acceptable		
CBG	0.00945	0.01	%	94.5	85 - 115	Acceptable		
CBD	0.00888	0.01	%	88.8	85 - 115	Acceptable		
THCV	0.00925	0.01	%	92.5	85 - 115	Acceptable		
THCVA	0.00930	0.01	%	93.0	85 - 115	Acceptable		
CBN	0.00912	0.01	%	91.2	85 - 115	Acceptable		
THC	0.00914	0.01	%	91.4	85 - 115	Acceptable		
D8THC	0.00974	0.01	%	97.4	85 - 115	Acceptable		
CBL	0.00931	0.01	%	93.1	85 - 115	Acceptable		
CBC	0.00892	0.01	%	89.2	85 - 115	Acceptable		
THCA	0.00851	0.01	%	85.1	85 - 115	Acceptable		
CBCA	0.00919	0.01	%	91.9	85 - 115	Acceptable		

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes	
CBDV-A	ND	0.005	%	< 0.005	Acceptable		
CBDV	ND	0.005	%	< 0.005	Acceptable		
CBD-A	ND	0.005	%	< 0.005	Acceptable		
CBG-A	ND	0.005	%	< 0.005	Acceptable		
CBG	ND	0.005	%	< 0.005	Acceptable		
CBD	ND	0.005	%	< 0.005	Acceptable		
THCV	ND	0.005	%	< 0.005	Acceptable		
THCVA	ND	0.005	%	< 0.005	Acceptable		
CBN	ND	0.005	%	< 0.005	Acceptable		
THC	ND	0.005	%	< 0.005	Acceptable		
D8THC	ND	0.005	%	< 0.005	Acceptable		
CBL	ND	0.005	%	< 0.005	Acceptable		
CBC	ND	0.005	%	< 0.005	Acceptable		
THCA	ND	0.005	%	< 0.005	Acceptable		
CBCA	ND	0.005	%	< 0.005	Acceptable		

Abbreviations

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

Units of Measure:

% - Percent



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J AOAC 2015 V98-6					Batch ID: 1805417			
Sample Duplicate					Sample ID: 18-007582-0001			
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDV-A	ND	ND	0.005	%	0	< 20	Acceptable	
CBDV	ND	ND	0.005	%	0	< 20	Acceptable	
CBD-A	ND	ND	0.005	%	0	< 20	Acceptable	
CBG-A	ND	ND	0.005	%	0	< 20	Acceptable	
CBG	0.00532	0.00552	0.005	%	3.69	< 20	Acceptable	
CBD	ND	ND	0.005	%	0	< 20	Acceptable	
THCV	ND	ND	0.005	%	0	< 20	Acceptable	
THCVA	ND	ND	0.005	%	0	< 20	Acceptable	
CBN	ND	ND	0.005	%	0	< 20	Acceptable	
THC	0.163	0.170	0.005	%	4.20	< 20	Acceptable	
D8THC	ND	ND	0.005	%	0	< 20	Acceptable	
CBL	ND	ND	0.005	%	0	< 20	Acceptable	
CBC	ND	ND	0.005	%	0	< 20	Acceptable	
THCA	ND	ND	0.005	%	0	< 20	Acceptable	
CBCA	ND	ND	0.005	%	0	< 20	Acceptable	

Abbreviations

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

Units of Measure:

% - Percent



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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	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.