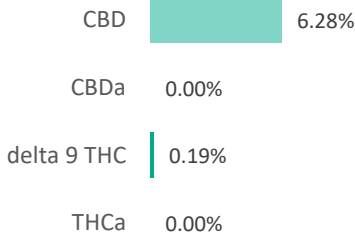
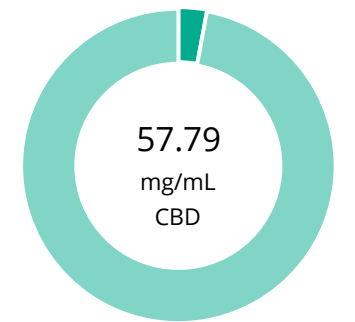


D133

<b>Batch ID:</b>		<b>Test ID:</b>	T000156322
<b>Type:</b>	Solution	<b>Submitted:</b>	08/11/2021 @ 09:41 AM
<b>Test:</b>	Potency	<b>Started:</b>	8/11/2021
<b>Method:</b>	TM14 (HPLC-DAD)	<b>Reported:</b>	8/11/2021

## CANNABINOID PROFILE



Compound	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.47	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.53	1.74	1.9
Cannabidiolic acid (CBDA)	0.55	ND	ND
Cannabidiol (CBD)	0.54	57.79	62.8
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.58	ND	ND
Cannabinolic Acid (CBNA)	0.33	ND	ND
Cannabinol (CBN)	0.15	0.21	0.2
Cannabigerolic acid (CBGA)	0.49	ND	ND
Cannabigerol (CBG)	0.12	1.23	1.3
Tetrahydrocannabivarinic Acid (THCVA)	0.41	ND	ND
Tetrahydrocannabivarin (THCV)	0.11	ND	ND
Cannabidivarinic Acid (CBDVA)	0.23	ND	ND
Cannabidivarin (CBDV)	0.13	0.82	0.9
Cannabichromenic Acid (CBCA)	0.19	ND	ND
Cannabichromene (CBC)	0.21	1.77	1.9
<b>Total Cannabinoids</b>		<b>63.56</b>	<b>69.1</b>
Total Potential THC**		1.74	1.9
Total Potential CBD**		57.79	62.8

### NOTES:

Density = 0.92g/mL

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)

\* Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.



\*\* Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step.

$$\text{Total THC} = \text{THC} + (\text{THCa} * (0.877)) \text{ and}$$

$$\text{Total CBD} = \text{CBD} + (\text{CBDa} * (0.877))$$

ND = None Detected (Defined by Dynamic Range of the method)

## FINAL APPROVAL

 <b>Rvan Weems</b> 11-Aug-2021 3:53 PM	 <b>Sam Smith</b> 11-Aug-2021 3:55 PM
PREPARED BY / DATE	APPROVED BY / DATE

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Certificate #4329.02

Prepared for:

**D133**
**NULEAF NATURALS**


Batch ID or Lot Number: <b>N/A</b>	Test: <b>Metals</b>	Reported: <b>8/23/21</b>	Location: 1550 LARIMER ST. #964 DENVER, CO 80202
Matrix: Unit	Test ID: T000156326	Started: 8/12/21	USDA License: N/A
Status: N/A	Method: TM19 (ICP-MS); Heavy Metals	Received: 08/11/2021 @ 09:41 AM	Sampler ID: N/A

## HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.044 - 4.39	ND	Revised certificate to reflect correct Dynamic Range and Results units of measurement (ppb to ppm). ppm is the correct unit of measurement and there are no changes to numerical results.
Cadmium	0.048 - 4.78	ND	
Mercury	0.044 - 4.38	ND	
Lead	0.044 - 4.38	ND	


 Ryan Weems  
 23-Aug-21  
 12:43 PM

PREPARED BY / DATE


 Daniel Weidensaul  
 23-Aug-21  
 12:53 PM

APPROVED BY / DATE

### Definitions

ND = None Detected (Defined by Dynamic Range of the method)

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Certificate #4329.02

D133

<b>Batch ID:</b>	30	<b>Test ID:</b>	T000157880
<b>Matrix:</b>	Finished Product	<b>Received:</b>	08/17/2021 @ 01:46 PM
<b>Test:</b>	Microbial Contaminants	<b>Started:</b>	8/18/2021
<b>Method:</b>	TM25 (qPCR) TM24, TM26, TM27, TM28 (Culture Plating)	<b>Reported:</b>	8/21/2021

## MICROBIAL CONTAMINANTS

Contaminant	Method	LOD	LLOQ	ULOQ	Result
<b>Total Aerobic Count*</b>	TM-26 Culture Plating	10 <sup>2</sup> CFU/g	10 <sup>3</sup> CFU/g	1.5x10 <sup>5</sup> CFU/g	<b>None Detected</b>
<b>Total Coliforms*</b>	TM-27 Culture Plating	10 <sup>1</sup> CFU/g	10 <sup>2</sup> CFU/g	1.5x10 <sup>4</sup> CFU/g	<b>None Detected</b>
<b>Total Yeast and Molds*</b>	TM-24 Culture Plating	10 <sup>1</sup> CFU/g	10 <sup>2</sup> CFU/g	1.5x10 <sup>4</sup> CFU/g	<b>None Detected</b>
<b><i>E. coli</i></b>	TM-28 Culture Plating	1 CFU/g	NA	NA	<b>Absent</b>
<b><i>E. coli</i> (STEC)</b>	TM-25 PCR	1 CFU/g	NA	NA	<b>Absent</b>
<b><i>Salmonella</i></b>	TM-25 PCR	1 CFU/g	NA	NA	<b>Absent</b>

\* Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form.

Examples: 10<sup>2</sup> = 100 CFU  
 10<sup>3</sup> = 1,000 CFU  
 10<sup>4</sup> = 10,000 CFU  
 10<sup>5</sup> = 100,000 CFU

### NOTES:

Free from visual mold, mildew, and foreign matter

### DEFINITIONS:


CFU/g = Colony Forming Units per Gram.

LOD = Limit of Detection


ULOQ = Upper Limit of Quantitation

LLOQ = Lower Limit of Quantitation

## FINAL APPROVAL

  
 Sarah Henning  
 21-Aug-2021  
 12:17 PM

PREPARED BY / DATE

  
 Courtney Richards  
 21-Aug-2021  
 9:27 PM

APPROVED BY / DATE

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Certificate #4329.03

Prepared for:

**D133**
**NULEAF NATURALS**

Batch ID or Lot Number:	Test: <b>Pesticides</b>	Reported: <b>8/16/21</b>	Location: 1550 LARIMER ST. #964 DENVER, CO 80202
Matrix: Concentrate	Test ID: T000156324	Started: 8/13/21	USDA License: N/A
Status: N/A	Method: TM17(LC-QQQ LC MS/MS):	Received: 08/11/2021 @ 09:41 AM	Sampler ID: N/A

## PESTICIDE DETERMINATION

Compound	LOQ (ppm)	Result (ppm)	Compound	LOQ (ppm)	Result (ppm)	Compound	LOQ (ppm)	Result (ppm)
Acephate	39	ND	Fenoxycarb	40	ND	Paclobutrazol	47	ND
Acetamiprid	42	ND	Fipronil	50	ND	Permethrin	290	ND
Avermectin	407	ND	Flonicamid	40	ND	Phosmet	44	ND
Azoxystrobin	45	ND	Fludioxonil	327	ND	Prophos	308	ND
Bifenazate	41	ND	Hexythiazox	33	ND	Propoxur	44	ND
Boscalid	45	ND	Imazalil	282	ND	Pyridaben	319	ND
Carbaryl	41	ND	Imidacloprid	41	ND	Spinosad A	36	ND
Carbofuran	44	ND	Kresoxim-methyl	150	ND	Spinosad D	53	ND
Chlorantraniliprole	50	ND	Malathion	300	ND	Spiromesifen	289	ND
Chlorpyrifos	500	ND	Metalaxyl	43	ND	Spirotetramat	283	ND
Clofentezine	273	ND	Methiocarb	43	ND	Spiroxamine 1	19	ND
Diazinon	295	ND	Methomyl	41	ND	Spiroxamine 2	26	ND
Dichlorvos	322	ND	MGK 264 1	167	ND	Tebuconazole	293	ND
Dimethoate	41	ND	MGK 264 2	118	ND	Thiacloprid	43	ND
E-Fenpyroximate	330	ND	Myclobutanil	44	ND	Thiamethoxam	41	ND
Etofenprox	45	ND	Naled	43	ND	Trifloxystrobin	45	ND
Etoxazole	305	ND	Oxamyl	1500	ND			



 Taylor Brevik  
 8/16/2021  
 1:51:00 PM



 Sam Smith  
 8/16/2021  
 2:01:00 PM

PREPARED BY / DATE

APPROVED BY / DATE

### Definitions

 LOQ = Limit of Quantification  
 ppb = Parts per Billion

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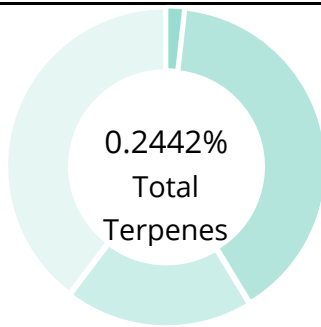


Certificate #4329.02

D133

<b>Batch ID:</b>		<b>Test ID:</b>	T000156323
<b>Type:</b>	Concentrate	<b>Submitted:</b>	08/11/2021 @ 09:41 AM
<b>Test:</b>	Terpenes	<b>Started:</b>	8/13/2021
<b>Method:</b>	TM22 (GC-MS)	<b>Reported:</b>	8/16/2021

## TERPENE PROFILE



Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	0.0878	0.878
Camphene	0.0000	0.000
delta-3-Carene	0.0000	0.000
beta-Caryophyllene	0.0875	0.875
(-)-Caryophyllene Oxide	0.0186	0.186
p-Cymene	0.0000	0.000
Eucalyptol	0.0000	0.000
Geraniol	0.0000	0.000
alpha-Humulene	0.0420	0.420
(-)-Isopulegol	0.0000	0.000
d-Limonene	0.0000	0.000
Linalool	0.0039	0.039
beta-Myrcene	0.0000	0.000
cis-Nerolidol	0.0000	0.000
trans-Nerolidol	0.0044	0.044
Ocimene	0.0000	0.000
beta-Ocimene	0.0000	0.000
alpha-Pinene	0.0000	0.000
(-)-beta-Pinene	0.0000	0.000
alpha-Terpinene	0.0000	0.000
gamma-Terpinene	0.0000	0.000
Terpinolene	0.0000	0.000
	<b>0.2442</b>	<b>2.442</b>



## PREDOMINANT TERPENES

alpha-Pinene	0.0000
(-)-beta-Pinene	0.0000
beta-Myrcene	0.0000
delta-3-Carene	0.0000
alpha-Terpinene	0.0000
d-Limonene	0.0000
Linalool	0.0039
beta-Caryophyllene	0.0875
alpha-Humulene	0.0420
(-)-alpha-Bisabolol	0.0878

## NOTES:

N/A

## FINAL APPROVAL

 Rvan Weems 16-Aug-2021 9:44 AM	 Daniel Weidensaul 16-Aug-2021 9:52 AM
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PREPARED BY / DATE

APPROVED BY / DATE

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A2LA Certificate Number 4329.02



Certificate #4329.02



Prepared for:


**D133**


**NULEAF NATURALS**

Batch ID or Lot Number: <b>30</b>	Test: <b>Residual Solvents</b>	Reported: <b>8/19/21</b>	Location: 1550 LARIMER ST. #964 DENVER, CO 80202
Matrix: N/A	Test ID: T000157882	Started: 8/19/21	USDA License: N/A
Status: N/A	Methods: TM04 (GC-MS): Residual Solvents	Received: 08/17/2021 @ 01:46 PM	Sampler ID: N/A

### RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
<b>Propane</b>	79 - 1578	*ND	
<b>Butanes</b> (Isobutane, n-Butane)	146 - 2914	*ND	
<b>Methanol</b>	53 - 1059	*ND	
<b>Pentane</b>	77 - 1531	*ND	
<b>Ethanol</b>	81 - 1617	*ND	
<b>Acetone</b>	82 - 1646	*ND	
<b>Isopropyl Alcohol</b>	92 - 1833	*ND	
<b>Hexane</b>	5 - 101	*ND	
<b>Ethyl Acetate</b>	84 - 1684	*ND	
<b>Benzene</b>	0 - 3	*ND	
<b>Heptanes</b>	80 - 1597	*ND	
<b>Toluene</b>	15 - 298	*ND	
<b>Xylenes</b> (m,p,o-Xylenes)	110 - 2203	*ND	


 Sam Smith  
 19-Aug-21  
 2:50 PM


 Karen Winternheimer  
 19-Aug-21  
 2:52 PM

PREPARED BY / DATE

APPROVED BY / DATE

#### Definitions

\* ND = None Detected (Defined by Dynamic Range of the method)

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