

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** Green Apple Gummies  
**PRODUCT STRENGTH:** 10 mg CBD / gummy  
**BATCH:** 220061  
**BEST BY DATE:** 03/2023  
**HEMP EXTRACT LOT:** C1026-001

Prepared for:  
 Astraèa & Co  
 50 E. Ridgewood Ave. STE 303  
 Ridgewood, NJ 07450

\*Click on the links to view third-party reports\*

### Physical Attributes

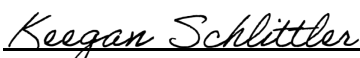
Test	Method	Specification	Results
Color	Internal	Medium Green	PASS
Odor	Internal	Sweet, green apple	PASS
Appearance	Internal	Medium green gummies with sugar coating in child proof container	PASS
Primary Package Eval.	Internal	Container clean and free of filth. Container caps tight and seals intact	PASS
Secondary Package Eval.	Internal	Labeling Compliance Checked, Sufficient cushion material exists. Box taped and secure.	PASS

### Review of Third-Party Analysis

Panel	Method	Specification	Results*	Pass/Fail
<b>Potency - Total CBD</b>	HPLC-UV DAD	*NLT 10 mg / gummy	<b>12.4mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	Complies with CDPHE 6 CCR for Broad Spectrum	<b>ND</b>	PASS
<b>Expanded Pesticide Panel</b>	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>Below LOQ</b>	PASS
<b>Microbial</b> Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Yeast and Mold	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Coliforms*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Aerobic Count*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>3</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Heavy Metals Panel</b>	ICP-MS	Arsenic (As): ≤1.5 ppm Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	<b>Below LOQ</b>	PASS
<b>Mycotoxins</b>	ICP-MS	Total Aflatoxins <20 ppb† Afltoxin B1 < 5 ppb Ochratoxin < 5ppb	<b>Below LOQ</b>	PASS
<b>Residual Solvents</b>	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR in effect during MFG*	<b>Below LOQ</b>	PASS

\* \*Level of Quantitation, † Parts Per Million ‡ Part Per Billion  
 CFU/g=Colony Forming Units per Gram  
 \* Nothing Less Than Manufacture\*  
 10<sup>2</sup>=100 CFU  
 10<sup>3</sup>=1,000 CFU

Quality Certified

  
 Keegan Schlittler  
 Quality Assurance Manager

03/30/2022

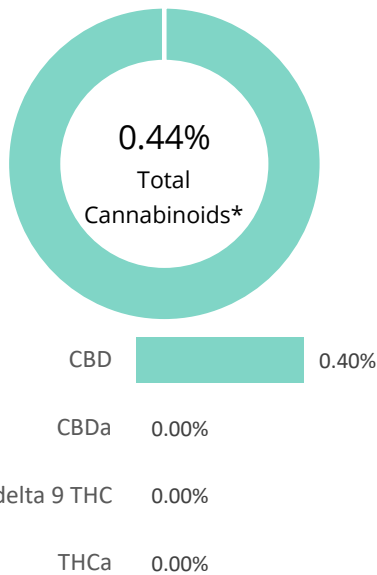
Date

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 50 E. Ridgewood Ave. STE 303  
 Ridgewood, NJ 07450

## Green Apple Gummy Composite Potency

<b>Batch ID:</b>	F220085-88, 98-100	<b>Test ID:</b>	T000197918
<b>Type:</b>	Concentrate	<b>Submitted:</b>	03/14/2022 @ 11:22 AM
<b>Test:</b>	Potency	<b>Started:</b>	3/15/2022
<b>Method:</b>	TM14 (HPLC-DAD)	<b>Reported:</b>	3/16/2022

## CANNABINOID PROFILE



Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.04	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.05	ND	ND
Cannabidiolic acid (CBDA)	0.05	ND	ND
Cannabidiol (CBD)	0.05	0.40	4.0
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.05	ND	ND
Cannabinolic Acid (CBNA)	0.03	ND	ND
Cannabinol (CBN)	0.01	ND	ND
Cannabigerolic acid (CBGA)	0.04	ND	ND
Cannabigerol (CBG)	0.01	0.04	0.4
Tetrahydrocannabivarinic Acid (THCVA)	0.04	ND	ND
Tetrahydrocannabivarin (THCV)	0.01	ND	ND
Cannabidivarinic Acid (CBDVA)	0.02	ND	ND
Cannabidivarin (CBDV)	0.01	ND	ND
Cannabichromenic Acid (CBCA)	0.02	ND	ND
Cannabichromene (CBC)	0.02	ND	ND
<b>Total Cannabinoids</b>		<b>0.44</b>	<b>4.4</b>
Total Potential THC**		ND	ND
Total Potential CBD**		0.40	4.0

## NOTES:

N/A

% = % (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> 16-Mar-2022 3:55 PM	 <b>Daniel Weidensaul</b> 16-Mar-2022 3:59 PM
PREPARED BY / DATE	APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2005 Accredited A2LA Certificate Number 4329.02



Certificate #4329.02

Prepared for:  
 Astraèa & Co  
 50 E. Ridgewood Ave. STE 303  
 Ridgewood, NJ 07450

**27728**


 Batch ID or Lot Number: **C1026-001**      Test: **Pesticides**      Reported: **11/17/21**


Matrix: Concentrate      Test ID: T000176014      Started: 11/16/21      USDA License: N/A

Status: N/A      Method: TM17(LC-QQQ LC MS/MS):      Received: 11/12/2021 @ 10:52 AM      Sampler ID: N/A

## PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	38	ND	Fenoxycarb	33	ND	Paclobutrazol	34	ND
Acetamiprid	31	ND	Fipronil	36	ND	Permethrin	294	ND
Avermectin	238	ND	Flonicamid	35	ND	Phosmet	32	ND
Azoxystrobin	33	ND	Fludioxonil	297	ND	Prophos	269	ND
Bifenazate	33	ND	Hexythiazox	31	ND	Propoxur	37	ND
Boscalid	29	ND	Imazalil	270	ND	Pyridaben	293	ND
Carbaryl	32	ND	Imidacloprid	33	ND	Spinosad A	27	ND
Carbofuran	34	ND	Kresoxim-methyl	150	ND	Spinosad D	52	ND
Chlorantraniliprole	25	ND	Malathion	272	ND	Spiromesifen	256	ND
Chlorpyrifos	500	ND	Metalaxyl	36	ND	Spirotetramat	273	ND
Clofentezine	288	ND	Methiocarb	34	ND	Spiroxamine 1	16	ND
Diazinon	279	ND	Methomyl	35	ND	Spiroxamine 2	20	ND
Dichlorvos	269	ND	MGK 264 1	151	ND	Tebuconazole	282	ND
Dimethoate	35	ND	MGK 264 2	112	ND	Thiacloprid	31	ND
E-Fenpyroximate	275	ND	Myclobutanil	30	ND	Thiamethoxam	35	ND
Etofenprox	32	ND	Naled	43	ND	Trifloxystrobin	33	ND
Etoxazole	282	ND	Oxamyl	1500	ND			


 Sam Smith  
 11/17/2021  
 4:42:00 PM


 Daniel Weidensaul  
 11/17/2021  
 5:02:00 PM

PREPARED BY / DATE

APPROVED BY / DATE

### Definitions

 LOQ = Limit of Quantification  
 ppb = Parts per Billion

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**Green Apple gummy composite micros**


 Batch ID or Lot Number: **220061**      Test: **Microbial Contaminants**      Reported: **3/17/22**

Matrix: Finished Product      Test ID: T000197936      Started: 3/14/22      USDA License: N/A


 Status: N/A      Methods: TM25 (qPCR)  
 TM24, TM26, TM27(Culture Plating): Microbial      Received: 03/14/2022 @ 10:07 AM      Sampler ID: N/A

**MICROBIAL CONTAMINANTS DETERMINATION**

Contaminant	Method	LOD	LLOQ	ULOQ	Result	Notes
<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	None Detected	Free from visual mold, mildew, and foreign matter
<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	None Detected	
<b>Total Yeast and Mold*</b>	TM-24, Culture Plating	10 <sup>1</sup> CFU/g	10 <sup>2</sup> CFU/g	1.5x10 <sup>4</sup> CFU/g	None Detected	
<b>STEC</b>	TM-25, PCR	10 <sup>0</sup> CFU/25 g	NA	NA	Absent	
<b>Salmonella</b>	TM-25, PCR	10 <sup>0</sup> CFU/25 g	NA	NA	Absent	


 Brett Hudson  
 3/17/2022  
 1:12:00 PM

PREPARED BY / DATE


 Carly Bader  
 3/17/2022  
 1:40:00 PM

APPROVED BY / DATE

**Definitions**

LOD = Limit of Detection | LLOQ = Lower Limit of Quantitation | ULOQ = Upper Limit of Quantitation

 CFU/g = Colony Forming Units per Gram | STEC = Shiga Toxin-Producing *E. coli*

\* 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

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**27728**


Batch ID or Lot Number: <b>C1026-001</b>	Test: <b>Metals</b>	Reported: <b>11/17/21</b>	
Matrix: Unit Co	Test ID: T000176016	Started: 11/16/21	USDA License: N/A
Status: N/A	Method: TM19 (ICP-MS); Heavy Metals (Colorado Panel)	Received: 11/12/2021 @ 10:52 AM	Sampler ID: N/A

### HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.043 - 4.32	ND	
Cadmium	0.044 - 4.40	ND	
Mercury	0.043 - 4.34	ND	
Lead	0.042 - 4.23	ND	

  
 Daniel Weidensaul  
 17-Nov-21  
 1:38 PM

PREPARED BY / DATE

  
 Sam Smith  
 17-Nov-21  
 1:41 PM

APPROVED BY / DATE

#### Definitions

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

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 50 E. Ridgewood Ave. STE 303  
 Ridgewood, NJ 07450

Batch ID or Lot Number: <b>C1026-001</b>	Test: <b>Mycotoxins</b>	Reported: <b>11/18/21</b>	
Matrix: Concentrate	Test ID: T000176018	Started: 11/17/21	USDA License: N/A
Status: N/A	Method: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins (Colorado Panel)	Received: 11/12/2021 @ 10:52 AM	Sampler ID: N/A

### MYCOTOXIN DETERMINATION

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.4 - 136.1	ND	N/A
Aflatoxin B1	1 - 33.6	ND	
Aflatoxin B2	1 - 33.4	ND	
Aflatoxin G1	1 - 32.6	ND	
Aflatoxin G2	1 - 32.7	ND	
<b>Total Aflatoxins (B1, B2, G1, and G2)</b>		ND	

  
 Sam Smith  
 18-Nov-21  
 8:42 AM

  
 Courtney Richards  
 18-Nov-21  
 4:45 PM

PREPARED BY / DATE

APPROVED BY / DATE

#### Definitions

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

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**27728**

Batch ID or Lot Number: <b>C1026-001</b>	Test: <b>Residual Solvents</b>	Reported: <b>11/15/21</b>	
Matrix: N/A	Test ID: T000176017	Started: 11/15/21	USDA License: N/A
Status: N/A	Methods: TM04 (GC-MS): Residual Solvents (Colorado Panel)	Received: 11/12/2021 @ 10:52 AM	Sampler ID: N/A

**RESIDUAL SOLVENTS DETERMINATION**

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	84 - 1689	*ND	
Butanes (Isobutane, n-Butane)	170 - 3409	*ND	
Methanol	65 - 1301	*ND	
Pentane	86 - 1728	*ND	
Ethanol	99 - 1986	*ND	
Acetone	99 - 1979	*ND	
Isopropyl Alcohol	118 - 2369	*ND	
Hexane	6 - 122	*ND	
Ethyl Acetate	105 - 2094	*ND	
Benzene	0.2 - 4.1	*ND	
Heptanes	95 - 1899	*ND	
Toluene	20 - 393	*ND	
Xylenes (m,p,o-Xylenes)	157 - 3139	*ND	

 Hannah Wright  
 15-Nov-21  
 4:02 PM

 Sam Smith  
 15-Nov-21  
 4:08 PM

PREPARED BY / DATE

APPROVED BY / DATE

**Definitions**

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

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