

Prepared for:
BLUEBIRD BOTANICALS
PO BOX 271724
Louisville, CO USA 80027

COSG

Batch ID or Lot Number: 3282	Test, Test ID and Methods: Various	Matrix: Finished Product	Page 1 of 7
Reported: 09May2024	Started: 08May2024	Received: 08May2024	

**Heavy Metals -
Colorado Compliance**

Test ID: T000280096
Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 4.58	ND	
Cadmium	0.05 - 4.78	ND	
Mercury	0.05 - 4.84	ND	
Lead	0.01 - 0.61	ND	

Final Approval


PREPARED BY / DATE

Karen Winternheimer
09May2024
01:24:00 PM MDT


APPROVED BY / DATE

Sam Smith
09May2024
02:24:00 PM MDT

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Louisville, CO USA 80027

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Pesticides

Test ID: T000280094
Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)
Abamectin	346 - 2669	ND
Acephate	37 - 2652	ND
Acetamiprid	44 - 2643	ND
Azoxystrobin	42 - 2692	ND
Bifenazate	41 - 2688	ND
Boscalid	43 - 2728	ND
Carbaryl	40 - 2701	ND
Carbofuran	44 - 2680	ND
Chlorantraniliprole	48 - 2738	ND
Chlorpyrifos	37 - 2695	ND
Clofentezine	280 - 2766	ND
Diazinon	283 - 2702	ND
Dichlorvos	277 - 2622	ND
Dimethoate	42 - 2636	ND
E-Fenpyroximate	287 - 2743	ND
Etofenprox	43 - 2717	ND
Etoxazole	292 - 2606	ND
Fenoxycarb	43 - 2728	ND
Fipronil	44 - 2814	ND
Flonicamid	41 - 2740	ND
Fludioxonil	297 - 2755	ND
Hexythiazox	41 - 2705	ND
Imazalil	283 - 2702	ND
Imidacloprid	48 - 2702	ND
Kresoxim-methyl	41 - 2695	ND

	Dynamic Range (ppb)	Result (ppb)
Malathion	298 - 2673	ND
Metalaxyl	39 - 2668	ND
Methiocarb	44 - 2788	ND
Methomyl	43 - 2692	ND
MGK 264 1	172 - 1597	ND
MGK 264 2	112 - 1093	ND
Myclobutanil	36 - 2804	ND
Naled	47 - 2680	ND
Oxamyl	45 - 2698	ND
Paclobutrazol	42 - 2702	ND
Permethrin	304 - 2683	ND
Phosmet	40 - 2591	ND
Prophos	279 - 2785	ND
Propoxur	42 - 2699	ND
Pyridaben	296 - 2697	ND
Spinosad A	34 - 2076	ND
Spinosad D	70 - 651	ND
Spiromesifen	280 - 2711	ND
Spirotetramat	271 - 2766	ND
Spiroxamine 1	12 - 1057	ND
Spiroxamine 2	9 - 1645	ND
Tebuconazole	283 - 2695	ND
Thiacloprid	47 - 2656	ND
Thiamethoxam	40 - 2689	ND
Trifloxystrobin	44 - 2711	ND

Final Approval


PREPARED BY / DATE
Sam Smith
10May2024
09:31:00 AM MDT


APPROVED BY / DATE
Karen Winternheimer
10May2024
09:40:00 AM MDT

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Mycotoxins - Colorado Compliance

Test ID: T000280098

Methods: TM18 (UHPLC-QQQ

LCMS/MS): Mycotoxins


	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	2.06 - 130.21	ND	N/A
Aflatoxin B1	0.90 - 33.68	ND	
Aflatoxin B2	0.93 - 34.08	ND	
Aflatoxin G1	1.00 - 34.18	ND	
Aflatoxin G2	1.63 - 34.44	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval



Karen Winterheimer
13May2024
10:59:00 AM MDT

PREPARED BY / DATE



Sam Smith
13May2024
11:03:00 AM MDT

APPROVED BY / DATE

Microbial Contaminants - Colorado Compliance

Test ID: T000280095

Methods: TM25 (qPCR) TM24, TM26,

TM27 (Culture Plating): Microbial

(Colorado Panel)

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
Salmonella	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	
Total Yeast and Mold*	TM24: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	
Total Aerobic Count*	TM26: Culture Plating	10 ² CFU/g	1.0x10 ³ - 1.5x10 ⁵	None Detected	
Total Coliforms*	TM27: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	

Final Approval



Brett Hudson
13May2024
01:20:00 PM MDT

PREPARED BY / DATE



Brianne Maillot
14May2024
07:47:00 PM MDT

APPROVED BY / DATE

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Cannabinoids - Colorado Compliance

Test ID: T000280093

Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis


	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.048	0.158	0.292	0.44	# of Servings = 1 Sample Weight=0.663g
Cannabichromenic Acid (CBCA)	0.044	0.145	0.305	0.46	
Cannabidiol (CBD)	0.155	0.415	7.900	11.91	
Cannabidiolic Acid (CBDA)	0.159	0.425	7.963	12.01	
Cannabidivarin (CBDV)	0.037	0.098	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.066	0.177	ND	ND	
Cannabigerol (CBG)	0.027	0.090	0.187	0.28	
Cannabigerolic Acid (CBGA)	0.114	0.376	ND	ND	
Cannabinol (CBN)	0.036	0.117	ND	ND	
Cannabinolic Acid (CBNA)	0.078	0.256	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.136	0.448	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.124	0.407	<LOQ	<LOQ	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.110	0.360	ND	ND	
Tetrahydrocannabivarin (THCV)	0.025	0.082	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.097	0.318	ND	ND	
Total Cannabinoids			16.647	25.10	
Total Potential THC			<LOQ	<LOQ	
Total Potential CBD			14.884	22.44	

Final Approval



Karen Winternheimer
13May2024
12:56:00 PM MDT

PREPARED BY / DATE



Sam Smith
13May2024
12:58:00 PM MDT

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**Cannabinoids - Colorado
Compliance**

Test ID: T000280092

Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis

	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.048	0.158	0.290	0.43	# of Servings = 1 Sample Weight=0.681g
Cannabichromenic Acid (CBCA)	0.044	0.145	0.304	0.45	
Cannabidiol (CBD)	0.155	0.415	7.863	11.54	
Cannabidiolic Acid (CBDA)	0.159	0.425	7.966	11.69	
Cannabidivarin (CBDV)	0.037	0.098	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.066	0.177	ND	ND	
Cannabigerol (CBG)	0.027	0.090	0.187	0.27	
Cannabigerolic Acid (CBGA)	0.114	0.376	ND	ND	
Cannabinol (CBN)	0.036	0.117	ND	ND	
Cannabinolic Acid (CBNA)	0.078	0.256	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.136	0.448	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.124	0.407	<LOQ	<LOQ	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.110	0.360	ND	ND	
Tetrahydrocannabivarin (THCV)	0.025	0.082	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.097	0.318	ND	ND	
Total Cannabinoids			16.610	24.38	
Total Potential THC			<LOQ	<LOQ	
Total Potential CBD			14.849	21.79	

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Karen Winternheimer
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**Residual Solvents -
Colorado Compliance**

Test ID: T000280097

Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	76 - 1520	ND	
Butanes (Isobutane, n-Butane)	163 - 3252	ND	
Methanol	65 - 1308	ND	
Pentane	87 - 1735	ND	
Ethanol	90 - 1798	ND	
Acetone	103 - 2069	ND	
Isopropyl Alcohol	110 - 2194	ND	
Hexane	6 - 128	ND	
Ethyl Acetate	106 - 2129	ND	
Benzene	0.2 - 4.3	ND	
Heptanes	98 - 1963	ND	
Toluene	19 - 382	ND	
Xylenes (m,p,o-Xylenes)	136 - 2729	ND	

Final Approval



Karen Winternheimer
14May2024
08:53:00 AM MDT

PREPARED BY / DATE



Sam Smith
14May2024
08:55:00 AM MDT

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<https://results.botanacor.com/api/v1/coas/uuid/ae989f08-7bb3-46e8-9f40-96460932793f>

Definitions

LOD = Limit of Detection, ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation, PPB = Parts per Billion, % = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method). Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa \times (0.877)) and Total CBD = CBD + (CBDa \times (0.877)). Fail equates to a concentration level of Delta 9-THC, on a dry weight basis, higher than 0.3 percent + or - the measurement uncertainty. Total Potential THC is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step. Total THC = THC + (THCa \times (0.877)). ALOQ = Above Limit Of Quantitation (defined by dynamic range of the method), CFU/g = Colony Forming Units per Gram. Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples: 10^2 = 100 CFU, 10^3 = 1,000 CFU, 10^4 = 10,000 CFU, 10^5 = 100,000 CFU.

Testing results are based solely upon the sample submitted to SC Laboratories, Inc., in the condition it was received. SC Laboratories, Inc., 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 SC Laboratories, Inc. ISO/IEC 17025:2017 A2LA Cert #: 4329.02 Chemical; 4329.03 Biological. Some tests listed on this COA may not be within our scope of A2LA accreditation. Please visit [A2LA for more details](#).



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