

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

## COSG

Batch ID or Lot Number: <b>325</b>	Test, Test ID and Methods: Various	Matrix: Finished Product	Page 1 of 6
Reported: <b>10Nov2023</b>	Started: 09Nov2023	Received: 08Nov2023	


## Pesticides


Test ID: T000261198

Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)	Result (ppb)	
Abamectin	331 - 2667	ND		Malathion	286 - 2685	ND
Acephate	40 - 2783	ND		Metalaxyl	43 - 2718	ND
Acetamiprid	42 - 2733	ND		Methiocarb	45 - 2694	ND
Azoxystrobin	45 - 2699	ND		Methomyl	41 - 2768	ND
Bifenazate	42 - 2750	ND		MGK 264 1	166 - 1591	ND
Boscalid	40 - 2737	ND		MGK 264 2	104 - 1084	ND
Carbaryl	39 - 2640	ND		Myclobutanil	54 - 2688	ND
Carbofuran	44 - 2678	ND		Naled	44 - 2649	ND
Chlorantraniliprole	43 - 2698	ND		Oxamyl	41 - 2793	ND
Chlorpyrifos	43 - 2706	ND		Paclobutrazol	43 - 2664	ND
Clofentezine	288 - 2730	ND		Permethrin	284 - 2791	ND
Diazinon	284 - 2678	ND		Phosmet	41 - 2577	ND
Dichlorvos	290 - 2795	ND		Prophos	301 - 2715	ND
Dimethoate	43 - 2719	ND		Propoxur	42 - 2685	ND
E-Fenpyroximate	284 - 2746	ND		Pyridaben	289 - 2780	ND
Etofenprox	47 - 2720	ND		Spinosad A	31 - 2077	ND
Etoxazole	288 - 2626	ND		Spinosad D	64 - 671	ND
Fenoxycarb	46 - 2652	ND		Spiromesifen	278 - 2762	ND
Fipronil	49 - 2780	ND		Spirotetramat	277 - 2736	ND
Flonicamid	46 - 2805	ND		Spiroxamine 1	16 - 1010	ND
Fludioxonil	301 - 2732	ND		Spiroxamine 2	26 - 1601	ND
Hexythiazox	43 - 2781	ND		Tebuconazole	288 - 2801	ND
Imazalil	267 - 2711	ND		Thiacloprid	44 - 2769	ND
Imidacloprid	50 - 2788	ND		Thiamethoxam	43 - 2808	ND
Kresoxim-methyl	49 - 2705	ND		Trifloxystrobin	44 - 2705	ND

## Final Approval

  
Karen Winternheimer  
10Nov2023  
09:29:00 AM MST  
PREPARED BY / DATE

  
Sam Smith  
10Nov2023  
09:32:00 AM MST  
APPROVED BY / DATE

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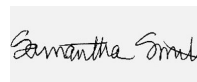
## Cannabinoids - Colorado Compliance

Test ID: T000261197  
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.050	0.169	0.328	0.54	# of Servings = 1 Sample Weight=0.603g
Cannabichromenic Acid (CBCA)	0.046	0.155	0.315	0.52	
Cannabidiol (CBD)	0.198	0.488	8.263	13.70	
Cannabidiolic Acid (CBDA)	0.203	0.501	7.813	12.95	
Cannabidivarin (CBDV)	0.047	0.115	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.085	0.209	ND	ND	
Cannabigerol (CBG)	0.029	0.096	0.175	0.29	
Cannabigerolic Acid (CBGA)	0.120	0.401	ND	ND	
Cannabinol (CBN)	0.037	0.125	ND	ND	
Cannabinolic Acid (CBNA)	0.082	0.274	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.142	0.478	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.129	0.434	<LOQ	<LOQ	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.115	0.384	<LOQ	<LOQ	
Tetrahydrocannabivarin (THCV)	0.026	0.087	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.101	0.339	ND	ND	
<b>Total Cannabinoids</b>			<b>16.894</b>	<b>28.00</b>	
Total Potential THC			<LOQ	<LOQ	
Total Potential CBD			15.115	25.06	

### Final Approval

  
Karen Winternheimer  
12Nov2023  
10:20:00 AM MST  
PREPARED BY / DATE

  
Sam Smith  
12Nov2023  
10:24:00 AM MST  
APPROVED BY / DATE

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## COSG


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## Residual Solvents - Colorado Compliance

Test ID: T000261201  
Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	117 - 2339	ND	
Butanes (Isobutane, n-Butane)	218 - 4358	ND	
Methanol	74 - 1473	ND	
Pentane	115 - 2309	ND	
Ethanol	121 - 2421	ND	
Acetone	117 - 2339	ND	
Isopropyl Alcohol	124 - 2480	ND	
Hexane	7 - 143	ND	
Ethyl Acetate	120 - 2410	ND	
Benzene	0.2 - 4.7	ND	
Heptanes	115 - 2309	ND	
Toluene	21 - 424	ND	
Xylenes (m,p,o-Xylenes)	154 - 3086	ND	

### Final Approval

  
Karen Winternheimer  
12Nov2023  
10:48:00 AM MST  
PREPARED BY / DATE

  
Sam Smith  
12Nov2023  
10:59:00 AM MST  
APPROVED BY / DATE

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## COSG

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## Cannabinoids - Colorado Compliance


Test ID: T000261196

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

Cannabinoid Analysis	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.050	0.169	0.352	0.56	# of Servings = 1 Sample Weight=0.632g
Cannabichromenic Acid (CBCA)	0.046	0.155	0.336	0.53	
Cannabidiol (CBD)	0.198	0.488	8.853	14.01	
Cannabidiolic Acid (CBDA)	0.203	0.501	8.303	13.14	
Cannabidivarin (CBDV)	0.047	0.115	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.085	0.209	ND	ND	
Cannabigerol (CBG)	0.029	0.096	0.180	0.28	
Cannabigerolic Acid (CBGA)	0.120	0.401	ND	ND	
Cannabinol (CBN)	0.037	0.125	ND	ND	
Cannabinolic Acid (CBNA)	0.082	0.274	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.142	0.478	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.129	0.434	<LOQ	<LOQ	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.115	0.384	<LOQ	<LOQ	
Tetrahydrocannabivarin (THCV)	0.026	0.087	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.101	0.339	ND	ND	
<b>Total Cannabinoids</b>			<b>18.024</b>	<b>28.52</b>	
Total Potential THC			<LOQ	<LOQ	
Total Potential CBD			16.135	25.53	

### Final Approval

  
Karen Winternheimer  
12Nov2023  
10:20:00 AM MST  
PREPARED BY / DATE

  
Sam Smith  
12Nov2023  
10:24:00 AM MST  
APPROVED BY / DATE

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## Microbial Contaminants - Colorado Compliance

Test ID: T000261199  
Methods: TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)

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

### Final Approval



Brett Hudson  
12Nov2023  
01:08:00 PM MST



Eden Thompson-Wright  
13Nov2023  
09:12:00 AM MST

PREPARED BY / DATE

APPROVED BY / DATE

## Mycotoxins - Colorado Compliance

Test ID: T000261202  
Methods: TM18 (UHPLC-QQQ)  
LCMS/MS: Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.15 - 131.33	ND	N/A
Aflatoxin B1	1.08 - 31.46	ND	
Aflatoxin B2	1.05 - 31.95	ND	
Aflatoxin G1	1.11 - 31.86	ND	
Aflatoxin G2	1.08 - 32.28	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

### Final Approval



Sam Smith  
17Nov2023  
07:50:00 AM MST



Karen Winternheimer  
17Nov2023  
07:53:00 AM MST

PREPARED BY / DATE

APPROVED BY / DATE

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## Heavy Metals - Colorado Compliance


Test ID: T000261200

Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 4.65	ND	
Cadmium	0.05 - 5.03	ND	
Mercury	0.05 - 4.80	ND	
Lead	0.05 - 4.66	ND	

### Final Approval

  
Samantha Smith  
17Nov2023  
07:29:00 AM MST  
PREPARED BY / DATE

  
Karen Winternheimer  
17Nov2023  
07:31:00 AM MST  
APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/40e1a6ca-588a-4b9d-94e3-7fa5247b75d0>

**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 \*(0.877)) and Total CBD = CBD + (CBDa \*(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 \*(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<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.

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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