

Prepared for:
Tweedle Botanicals

87 Camino Bosque
Boulder, CO USA 80302

Tweedle Hemp Spirit

Batch ID or Lot Number: 23581	Test: Potency	Reported: 15Oct2024	USDA License: N/A
Matrix: Unit	Test ID: T000291715	Started: 14Oct2024	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD)	Received: 14Oct2024	Status: N/A

Cannabinoids

	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.332	1.224	<LOQ	<LOQ	# of Servings = 1, Sample Weight=750g
Cannabichromenic Acid (CBCA)	0.304	1.120	ND	ND	
Cannabidiol (CBD)	1.056	3.101	283.320	0.40	
Cannabidiolic Acid (CBDA)	1.084	3.180	ND	ND	
Cannabidivarin (CBDV)	0.250	0.733	3.090	0.00	
Cannabidivarinic Acid (CBDVA)	0.452	1.327	ND	ND	
Cannabigerol (CBG)	0.189	0.695	15.290	0.00	
Cannabigerolic Acid (CBGA)	0.788	2.906	ND	ND	
Cannabinol (CBN)	0.246	0.907	7.340	0.00	
Cannabinolic Acid (CBNA)	0.538	1.983	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.939	3.462	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.853	3.145	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.756	2.786	ND	ND	
Tetrahydrocannabivarin (THCV)	0.172	0.632	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.667	2.457	ND	ND	
Total Cannabinoids			309.040	0.40	
Total Potential THC			ND	ND	
Total Potential CBD			283.320	0.40	

Final Approval


Judith Marquez
15Oct2024
01:38:00 PM MDT

PREPARED BY / DATE


Sam Smith
15Oct2024
01:49:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/80049026-c42c-40e8-b059-1d6dfc492395>

Definitions
% = % (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)).

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.



Cert #4329.02

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Prepared for:
Tweedle Botanicals


87 Camino Bosque
Boulder, CO USA 80302


Tweedle Hemp Spirit

Batch ID or Lot Number: 23581	Test: Mycotoxins	Reported: 08Nov2024	USDA License: N/A
Matrix: Concentrate	Test ID: T000293232	Started: 07Nov2024	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 06Nov2024	Status: Active

Mycotoxins	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	0.71 - 130.62	ND	N/A
Aflatoxin B1	0.91 - 32.73	ND	
Aflatoxin B2	0.94 - 32.73	ND	
Aflatoxin G1	0.94 - 32.79	ND	
Aflatoxin G2	1.43 - 32.89	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval


Sam Smith
08Nov2024
09:35:00 AM MST
PREPARED BY / DATE


Karen Winternheimer
08Nov2024
09:37:00 AM MST
APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/1a6c0530-3bf7-46a7-94fc-39cecc22d511>

Definitions
ND = None Detected (defined by dynamic range of the method)
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

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Prepared for:
Tweedle Botanicals

87 Camino Bosque
Boulder, CO USA 80302

Tweedle Hemp Spirit

Batch ID or Lot Number: 23581	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 1 of 4
Reported: 31Oct2024	Started: 30Oct2024	Received: 29Oct2024	


Residual Solvents

Test ID: T000292556


Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	85 - 1695	ND	
Butanes (Isobutane, n-Butane)	170 - 3397	ND	
Methanol	66 - 1326	ND	
Pentane	89 - 1772	ND	
Ethanol	99 - 1977	ND	
Acetone	104 - 2070	ND	
Isopropyl Alcohol	113 - 2266	ND	
Hexane	6 - 127	ND	
Ethyl Acetate	107 - 2132	ND	
Benzene	0.2 - 4.4	ND	
Heptanes	99 - 1985	ND	
Toluene	20 - 396	ND	
Xylenes (m,p,o-Xylenes)	146 - 2926	ND	

Final Approval

 Sam Smith
31Oct2024
02:34:00 PM MDT

PREPARED BY / DATE

 Sam Smith
31Oct2024
02:36:00 PM MDT

APPROVED BY / DATE


Heavy Metals

Test ID: T000292555

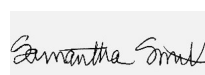
Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.04 - 4.34	ND	
Cadmium	0.04 - 4.28	ND	
Mercury	0.05 - 4.52	ND	
Lead	0.05 - 4.74	ND	

Final Approval

 Karen Winterheimer
01Nov2024
02:19:00 PM MDT

PREPARED BY / DATE

 Sam Smith
01Nov2024
02:24:00 PM MDT

APPROVED BY / DATE

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Batch ID or Lot Number: 23581	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 2 of 4
Reported: 31Oct2024	Started: 30Oct2024	Received: 29Oct2024	

**Microbial
Contaminants**

Test ID: T000292554

Methods: TM25 (PCR) TM24, TM26,
TM27 (Culture Plating)

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
<i>Salmonella</i>	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
03Nov2024
12:28:00 PM MST



Nora Langer
04Nov2024
11:02:00 AM MST

PREPARED BY / DATE

APPROVED BY / DATE

Prepared for:
Tweedle Botanicals

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Batch ID or Lot Number: 23581	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 3 of 4
Reported: 31Oct2024	Started: 30Oct2024	Received: 29Oct2024	

Pesticides


Test ID: T000292553


Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)
Abamectin	394 - 2706	ND
Acephate	46 - 2775	ND
Acetamiprid	37 - 2745	ND
Azoxystrobin	45 - 2766	ND
Bifenazate	38 - 2769	ND
Boscalid	43 - 2665	ND
Carbaryl	37 - 2704	ND
Carbofuran	43 - 2697	ND
Chlorantraniliprole	38 - 2712	ND
Chlorpyrifos	28 - 2778	ND
Clofentezine	271 - 2755	ND
Diazinon	278 - 2776	ND
Dichlorvos	261 - 2774	ND
Dimethoate	39 - 2753	ND
E-Fenpyroximate	337 - 2738	ND
Etofenprox	38 - 2763	ND
Etoxazole	337 - 2661	ND
Fenoxycarb	45 - 2768	ND
Fipronil	32 - 2752	ND
Flonicamid	44 - 2790	ND
Fludioxonil	298 - 2742	ND
Hexythiazox	41 - 2712	ND
Imazalil	267 - 2773	ND
Imidacloprid	37 - 2763	ND
Kresoxim-methyl	45 - 2804	ND

	Dynamic Range (ppb)	Result (ppb)
Malathion	277 - 2772	ND
Metalaxyl	46 - 2755	ND
Methiocarb	45 - 2729	ND
Methomyl	40 - 2799	ND
MGK 264 1	138 - 1605	ND
MGK 264 2	108 - 1089	ND
Myclobutanil	40 - 2672	ND
Naled	41 - 2699	ND
Oxamyl	42 - 2798	ND
Paclobutrazol	42 - 2710	ND
Permethrin	253 - 2723	ND
Phosmet	47 - 2646	ND
Prophos	282 - 2714	ND
Propoxur	42 - 2703	ND
Pyridaben	334 - 2735	ND
Spinosad A	31 - 2103	ND
Spinosad D	76 - 659	ND
Spiromesifen	317 - 2711	ND
Spirotetramat	295 - 2776	ND
Spiroxamine 1	14 - 1034	ND
Spiroxamine 2	23 - 1615	ND
Tebuconazole	289 - 2761	ND
Thiacloprid	38 - 2779	ND
Thiamethoxam	38 - 2773	ND
Trifloxystrobin	42 - 2739	ND

Final Approval

 Sam Smith
07Nov2024
09:10:00 AM MST
PREPARED BY / DATE

 Karen Winternheimer
07Nov2024
09:13:00 AM MST
APPROVED BY / DATE

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Tweedle Hemp Spirit

Batch ID or Lot Number: 23581	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 4 of 4
Reported: 31Oct2024	Started: 30Oct2024	Received: 29Oct2024	



<https://results.botanacor.com/api/v1/coas/uuid/71e34ab7-65ab-48b6-b9ff-6c9c2f80d11f>

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.

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