

Utah Department of Agriculture and Food
Division of Laboratory Services
 4451 South 2700 West
 Taylorsville, Utah 84129
 (801) 816-3840

CERTIFICATE OF ANALYSIS

Cannabinoid Analysis

Status: PASS

Sample ID:	HP23234-3	Description:	Capsule - Ingest
Testing Date:	08/28/2023	Reviewed By:	Cameron Cheyne

Method: ACL.AM.003 Analysis performed using High-Performance Liquid Chromatography (HPLC-DAD)

Analyte	Abbreviation	CAS Number	% (w/w)	mg/g
Δ9-Tetrahydrocannabinidiol	Δ9-THC	1972-08-03	0.04%	0.4
Δ8-Tetrahydrocannabinidiol	Δ8-THC	5957-75-5	NQ	NQ
Δ9-Tetrahydrocannabinolic acid	THCA	23978-85-0	NQ	NQ
Δ9-Tetrahydrocannabivarin	THCV	31262-37-0	ND	ND
Cannabidiol	CBD	13956-29-1	0.08%	0.8
Cannabidiolic acid	CBDA	1244-58-2	ND	ND
Cannabidivarin	CBDV	24274-48-4	ND	ND
Cannabinol	CBN	521-35-7	<LOQ	<LOQ
Cannabigerol	CBG	25654-31-3	3.90%	39
Cannabichromene	CBC	20675-51-8	0.21%	2.1
Cannabigerolic acid	CBGA	25555-57-1	0.43%	4.3
Cannabichromenic acid	CBCA	20408-52-0	<LOQ	<LOQ
9(R+S)-Δ6a,10a-Tetrahydrocannabinidiol	Δ3-THC	95720-01-07, 95720-02-8	ND	ND
(6aR,9R)-Δ10-Tetrahydrocannabinidiol	(6aR,9R)-Δ10-THC	95543-62-7	ND	ND
(6aR,9S)-Δ10-Tetrahydrocannabinidiol	(6aR,9S)-Δ10-THC	95588-87-7	ND	ND
Total Cannabinoids			4.65%	46.5
Total THC			0.04%	0.4
Total CBD			0.08%	0.8

Unknown Cannabinoid Peak Area: 0.0%

Status: PASS

Notes:

Total Cannabinoids is calculated as the direct sum of each of the cannabinoid values.
 Total THC is calculated as Δ9-THC + (THCA x 0.877).
 Total CBD is calculated as CBD + (CBDA x 0.877).

ND = Not Detected, NQ = Not Quantifiable, NT = Not Tested, <LOQ = Below the limit of quantification

The results reported herein pertain only to the indicated sample and may not be used as an endorsement of a product. The results are given under applicable provisions of the Utah Code and represent a true statement of the outcomes of the analyses conducted on the sample received by the laboratory. This report may not be reproduced, except in its entirety. © 2023 All Rights Reserved.

Prepared for:
Kielbasa Farms

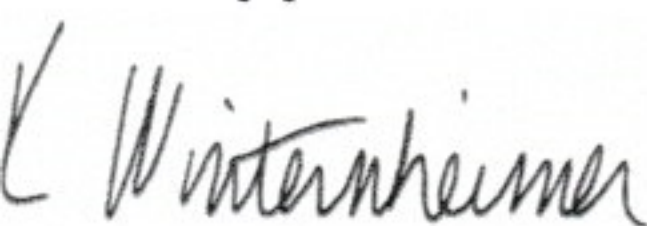
Po Box 668
Duchesne, UT USA 84021

Capsule

Batch ID or Lot Number: CapsuleBatch102	Test: Pesticides	Reported: 11Jul2023	USDA License: NA
Matrix: Finished Product	Test ID: T000246448	Started: 05Jul2023	Sampler ID: NA
	Method(s): TM17 (LC-QQ LC MS/MS)	Received: 05Jul2023	Status: NA

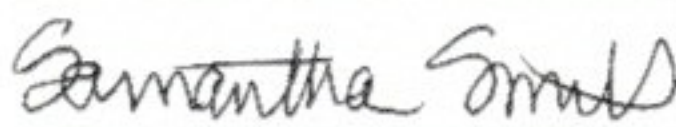
Pesticides	Dynamic Range (ppb)	Result (ppb)	Pesticides	Dynamic Range (ppb)	Result (ppb)
Abamectin	365 - 2720	ND	Malathion	274 - 2746	ND
Acephate	43 - 2742	ND	Metalaxyl	40 - 2732	ND
Acetamiprid	41 - 2697	ND	Methiocarb	43 - 2768	ND
Azoxystrobin	42 - 2750	ND	Methomyl	42 - 2744	ND
Bifenazate	41 - 2738	ND	MGK 264 1	168 - 1729	ND
Boscalid	45 - 2779	ND	MGK 264 2	103 - 1086	ND
Carbaryl	42 - 2763	ND	Myclobutanil	44 - 2805	ND
Carbofuran	41 - 2724	ND	Naled	45 - 2772	ND
Chlorantraniliprole	47 - 2795	ND	Oxamyl	44 - 2736	ND
Chlorpyrifos	42 - 2734	ND	Paclobutrazol	43 - 2735	ND
Clofentezine	285 - 2748	ND	Permethrin	297 - 2697	ND
Diazinon	290 - 2732	ND	Phosmet	39 - 2738	ND
Dichlorvos	282 - 2726	ND	Prophos	318 - 2754	ND
Dimethoate	39 - 2704	ND	Propoxur	42 - 2731	ND
E-Fenpyroximate	284 - 2726	ND	Pyridaben	289 - 2678	ND
Etofenprox	39 - 2689	ND	Spinosad A	28 - 2074	ND
Etozazole	290 - 2691	ND	Spinosad D	62 - 668	ND
Fenoxycarb	31 - 2749	ND	Spiromesifen	271 - 2725	ND
Fipronil	60 - 2615	ND	Spirotetramat	281 - 2815	ND
Flonicamid	44 - 2773	ND	Spiroxamine 1	18 - 1260	ND
Fludioxonil	302 - 2760	ND	Spiroxamine 2	21 - 1567	ND
Hexythiazox	46 - 2690	ND	Tebuconazole	294 - 2756	ND
Imazalil	265 - 2781	ND	Thiacloprid	41 - 2698	ND
Imidacloprid	52 - 2772	ND	Thiamethoxam	42 - 2725	ND
Kresoxim-methyl	44 - 2736	ND	Trifloxystrobin	40 - 2710	ND

Final Approval



Karen Winternheimer
06Jul2023
02:08:00 PM MDT

PREPARED BY / DATE



Sam Smith
11Jul2023
01:02:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/2a2d3b66-777c-4940-9fe2-e6f9f632250f>

Definitions

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

Prepared for:
Kielbasa Farms

Po Box 668
Duchesne, UT USA 84021

Capsule

Batch ID or Lot Number: CapsuleBatch102	Test: Heavy Metals	Reported: 11Jul2023	USDA License: NA
Matrix: Finished Product	Test ID: T000246450	Started: 10Jul2023	Sampler ID: NA
	Method(s): TM19 (ICP-MS): Heavy Metals	Received: 05Jul2023	Status: NA

Heavy Metals

	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.04 - 4.27	0.34	
Cadmium	0.04 - 4.39	ND	
Mercury	0.04 - 4.47	ND	
Lead	0.04 - 4.47	0.29	

Final Approval

Samantha Smith
PREPARED BY / DATE
Sam Smith
11Jul2023
10:51:00 AM MDT

K Winterheimer
APPROVED BY / DATE
Karen Winterheimer
11Jul2023
10:53:00 AM MDT



<https://results.botanacor.com/api/v1/coas/uuid/06062c01-9022-492a-8bba-2aef6645efb0>

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

Prepared for:

Kielbasa Farms

Po Box 668

Duchesne, UT USA 84021

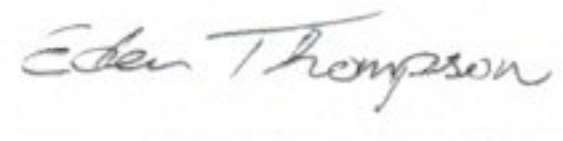
Capsule

Batch ID or Lot Number: CapsuleBatch102	Test: Microbial Contaminants	Reported: 10Jul2023	USDA License: NA
Matrix: Finished Product	Test ID: T000246449	Started: 05Jul2023	Sampler ID: NA
	Method(s): TM25 (PCR) TM24, TM26, TM27 (Culture Plating)	Received: 05Jul2023	Status: NA

Microbial Contaminants


	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	<LLOQ	
Total Aerobic Count*	TM26: Culture Plating	10 ² CFU/g	1.0x10 ³ - 1.5x10 ⁵	<LLOQ	
Total Coliforms*	TM27: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	

Final Approval



Eden Thompson-Wright
08Jul2023
10:34:00 AM MDT

PREPARED BY / DATE



Brianne Maillot
10Jul2023
09:08:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/939d88c5-d1a9-4de4-8597-1a91c26d9608>

Definitions

* Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples: 10² = 100 CFU, 10³ = 1,000 CFU, 10⁴ = 10,000 CFU, 10⁵ = 100,000 CFU
 CFU/g = Colony Forming Units per Gram, LOD = Limit of Detection
 ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation
 STEC = Shiga Toxin-Producing E. coli

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 reported using an unbiased chain of comparison to NIST traceable Reference Standards and Certified



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Kielbasa Farms
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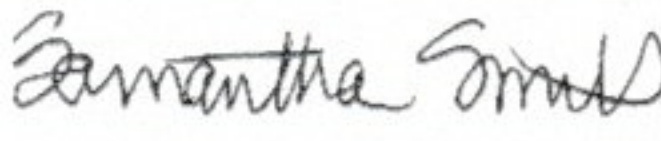
Capsule


Batch ID or Lot Number: CapsuleBatch102	Test: Mycotoxins	Reported: 10Jul2023	USDA License: N/A
Matrix: Finished Product	Test ID: T000246452	Started: 07Jul2023	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 05Jul2023	Status: Active

Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	2.58 - 137.32	ND	N/A
Aflatoxin B1	1.01 - 34.09	ND	
Aflatoxin B2	0.97 - 34.29	ND	
Aflatoxin G1	1.14 - 33.89	ND	
Aflatoxin G2	0.97 - 34.22	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval


 PREPARED BY / DATE
 Sam Smith
 10Jul2023
 09:01:00 AM MDT


 APPROVED BY / DATE
 Karen Winternheimer
 10Jul2023
 09:03:00 AM MDT



<https://results.botanacor.com/api/v1/coas/uuid/d316ea87-3f39-4550-a7bc-e46631794082>

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

Prepared for:

Kielbasa Farms

Po Box 668

Duchesne, UT USA 84021

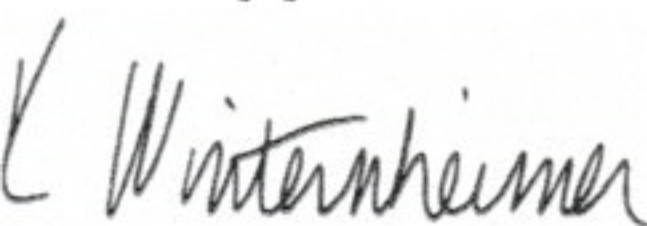
Capsule

Batch ID or Lot Number: CapsuleBatch102	Test: Residual Solvents	Reported: 07Jul2023	USDA License: N/A
Matrix: Finished Product	Test ID: T000246451	Started: 06Jul2023	Sampler ID: N/A
	Method(s): TM04 (GC-MS): Residual Solvents	Received: 05Jul2023	Status: Active

Residual Solvents

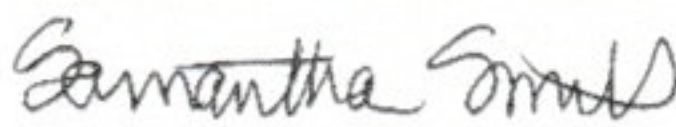
Residual Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	104 - 2076	ND	
Butanes (Isobutane, n-Butane)	212 - 4240	ND	
Methanol	62 - 1236	ND	
Pentane	109 - 2185	ND	
Ethanol	109 - 2185	ND	
Acetone	106 - 2118	ND	
Isopropyl Alcohol	110 - 2193	ND	
Hexane	6 - 119	ND	
Ethyl Acetate	105 - 2092	ND	
Benzene	0.2 - 4.5	ND	
Heptanes	116 - 2311	ND	
Toluene	21 - 418	ND	
Xylenes (m,p,o-Xylenes)	132 - 2630	ND	

Final Approval



Karen Winternheimer
07Jul2023
12:00:00 PM MDT

PREPARED BY / DATE



Sam Smith
07Jul2023
12:02:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/6ad21fb7-c8d7-4a64-b8f9-f0b2d11974e2>

Definitions

ND = None Detected (defined by dynamic range of the method)

Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range