

# CERTIFICATE OF ANALYSIS

Prepared for:  
**Pet Releaf**

8100 Southpark Way #A3  
Littleton, CO USA 80120

## 600 mg - Hip & Joint

Batch ID or Lot Number: <b>0923FH605</b>	Test: <b>Potency</b>	Reported: <b>21Sep2023</b>	USDA License: N/A
Matrix: Solution	Test ID: T000256845	Started: 21Sep2023	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 21Sep2023	Status: Active

## Cannabinoids

	LOD (mg/mL)	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.055	0.190	0.693	0.73	Density = 0.945g/mL
Cannabichromenic Acid (CBCA)	0.050	0.174	ND	ND	
Cannabidiol (CBD)	0.174	0.482	21.209	22.44	
Cannabidiolic Acid (CBDA)	0.179	0.494	<LOQ	<LOQ	
Cannabidivarin (CBDV)	0.041	0.114	<LOQ	<LOQ	
Cannabidivarinic Acid (CBDVA)	0.075	0.206	ND	ND	
Cannabigerol (CBG)	0.031	0.108	0.362	0.38	
Cannabigerolic Acid (CBGA)	0.130	0.451	ND	ND	
Cannabinol (CBN)	0.041	0.141	<LOQ	<LOQ	
Cannabinolic Acid (CBNA)	0.089	0.308	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.155	0.537	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.141	0.488	0.526	0.56	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.125	0.432	ND	ND	
Tetrahydrocannabivarin (THCV)	0.028	0.098	<LOQ	<LOQ	
Tetrahydrocannabivarinic Acid (THCVA)	0.110	0.381	ND	ND	
<b>Total Cannabinoids</b>			<b>22.790</b>	<b>24.11</b>	
Total Potential THC			0.526	0.56	
Total Potential CBD			21.209	22.44	

Approved: Paul Gennings QC 09-21-23

## Final Approval



Karen Winternheimer  
21Sep2023  
01:47:00 PM MDT

PREPARED BY / DATE



Sam Smith  
21Sep2023  
01:49:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/1557bee1-9fa5-44eb-8283-ae0db7cdd61f>

### 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 Accredited by A2LA.



Cert #4329.02

CDPHE Certified

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Prepared for:

## Pet Relief

8100 Southpark Way #A3  
Littleton, CO USA 80120

### 600 mg - Hip & Joint

Batch ID or Lot Number: <b>0923FH605</b>	Test, Test ID and Methods: Various	Matrix: Finished Product	Page 1 of 6
Reported: <b>12Sep2023</b>	Started: 09Sep2023	Received: 11Sep2023	

### Mycotoxins - Colorado Compliance


Test ID: T000255641

Methods: TM18 (UHPLC-QQQ)

LCMS/MS: Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.29 - 124.10	ND	N/A
Aflatoxin B1	1.08 - 32.68	ND	
Aflatoxin B2	1.04 - 32.45	ND	
Aflatoxin G1	1.08 - 32.71	ND	
Aflatoxin G2	1.27 - 33.23	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

### Final Approval

  
PREPARED BY / DATE  
Sam Smith  
12Sep2023  
06:21:00 AM MDT

  
APPROVED BY / DATE  
Karen Winternheimer  
12Sep2023  
06:22:00 AM MDT

Prepared for:

## Pet Releaf

8100 Southpark Way #A3  
Littleton, CO USA 80120

### 600 mg - Hip & Joint

Batch ID or Lot Number: <b>0923FH605</b>	Test, Test ID and Methods: Various	Matrix: Finished Product	Page 3 of 6
Reported: <b>12Sep2023</b>	Started: 09Sep2023	Received: 11Sep2023	


### Residual Solvents - Colorado Compliance

Test ID: T000255640


Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	113 - 2251	ND	
Butanes (Isobutane, n-Butane)	223 - 4467	ND	
Methanol	68 - 1352	ND	
Pentane	113 - 2261	ND	
Ethanol	109 - 2190	ND	
Acetone	112 - 2231	ND	
Isopropyl Alcohol	112 - 2241	ND	
Hexane	7 - 133	ND	
Ethyl Acetate	109 - 2170	ND	
Benzene	0.2 - 4.5	ND	
Heptanes	111 - 2229	ND	
Toluene	20 - 402	ND	
Xylenes (m,p,o-Xylenes)	145 - 2906	ND	

### Final Approval

 Karen Winternheimer  
13Sep2023  
02:43:00 PM MDT

PREPARED BY / DATE

 Sam Smith  
13Sep2023  
02:44:00 PM MDT

APPROVED BY / DATE

Prepared for:  
**Pet Releaf**

8100 Southpark Way #A3  
Littleton, CO USA 80120

## 600 mg - Hip & Joint

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## Microbial Contaminants - Colorado Compliance

Test ID: T000255638  
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

  
Brianne Maillot  
14Sep2023  
08:58:00 AM MDT

PREPARED BY / DATE



Brett Hudson  
14Sep2023  
09:43:00 AM MDT

APPROVED BY / DATE

Prepared for:  
**Pet Releaf**

8100 Southpark Way #A3  
Littleton, CO USA 80120

## 600 mg - Hip & Joint

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## Pesticides


Test ID: T000255637

Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)	Result (ppb)	
Abamectin	352 - 2613	ND		Malathion	273 - 2712	ND
Acephate	45 - 2712	ND		Metalaxyl	47 - 2676	ND
Acetamiprid	42 - 2736	ND		Methiocarb	47 - 2784	ND
Azoxystrobin	48 - 2669	ND		Methomyl	42 - 2775	ND
Bifenazate	47 - 2705	ND		MGK 264 1	132 - 1693	ND
Boscalid	50 - 2752	ND		MGK 264 2	110 - 1068	ND
Carbaryl	45 - 2704	ND		Myclobutanil	93 - 2714	ND
Carbofuran	45 - 2713	ND		Naled	46 - 2744	ND
Chlorantraniliprole	43 - 2842	ND		Oxamyl	43 - 2782	ND
Chlorpyrifos	47 - 2725	ND		Paclobutrazol	45 - 2756	ND
Clofentezine	268 - 2759	ND		Permethrin	278 - 2737	ND
Diazinon	280 - 2723	ND		Phosmet	42 - 2686	ND
Dichlorvos	255 - 2755	ND		Prophos	295 - 2783	ND
Dimethoate	42 - 2743	ND		Propoxur	45 - 2701	ND
E-Fenpyroximate	280 - 2753	ND		Pyridaben	300 - 2719	ND
Etofenprox	45 - 2650	ND		Spinosad A	34 - 2073	ND
Etoxazole	307 - 2718	ND		Spinosad D	72 - 670	ND
Fenoxycarb	25 - 2756	ND		Spiromesifen	264 - 2755	ND
Fipronil	36 - 2773	ND		Spirotetramat	261 - 2774	ND
Flonicamid	50 - 2757	ND		Spiroxamine 1	20 - 1216	ND
Fludioxonil	305 - 2727	ND		Spiroxamine 2	25 - 1555	ND
Hexythiazox	43 - 2745	ND		Tebuconazole	312 - 2653	ND
Imazalil	282 - 2706	ND		Thiacloprid	44 - 2738	ND
Imidacloprid	42 - 2790	ND		Thiamethoxam	43 - 2764	ND
Kresoxim-methyl	47 - 2693	ND		Trifloxystrobin	46 - 2680	ND

## Final Approval

  
Karen Winternheimer  
14Sep2023  
08:36:00 AM MDT  
PREPARED BY / DATE

  
Sam Smith  
14Sep2023  
08:38:00 AM MDT  
APPROVED BY / DATE

Prepared for:  
**Pet Relief**

8100 Southpark Way #A3  
Littleton, CO USA 80120

## 600 mg - Hip & Joint

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## Heavy Metals - Colorado Compliance


Test ID: T000255639

Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.04 - 4.17	ND	
Cadmium	0.04 - 4.46	ND	
Mercury	0.04 - 4.30	ND	
Lead	0.04 - 4.38	ND	

### Final Approval

  
Samantha Smith  
15Sep2023  
11:35:00 AM MDT  
PREPARED BY / DATE

  
Karen Winternheimer  
15Sep2023  
11:42:00 AM MDT  
APPROVED BY / DATE

Approved: Paul Gennings QC 09-21-23



<https://results.botanacor.com/api/v1/coas/uuid/621e4e9b-1442-4105-a398-066683381767>

**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.

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