DANU

CERTIFICATE OF ANALYSIS

PRODUCT NAME:	Dog Chews
PRODUCT STRENGTH:	2 mg / chew
FILL LOT NUMBER:	2952501
DOG TREAT LOT NUMBER*:	21215A
BEST BY DATE	06/2023

Click on the links to view third-party reports

Physical Atttributes

Test	Method	Specification	Results
Color	SOP-100	Brown	PASS
Odor	SOP-100	Beef, grains, somewhat yeasty	PASS
Appearance	SOP-100	Squat cylindrical dog treats a plastic amber container	PASS
Primary Package Eval.	SOP-132	Container clean and free of filth. Container caps tight and shrink bands intanct.	PASS
Secondary Package Eval.	SOP-132	Labeling Compliance Checked, Cartons sturdy and clean. Sufficient cushion material exists. Box taped and secure.	PASS

Review of Third-Party Analysis

Panel	Method	Specification	Results*	Pass/Fail
Potency - Total CBD	SOP-111	*NLT 2 mg / chew	3.0 mg/chew	PASS
Potency - D9-THC	SOP-111	None Detected LOQ: 10 PPM (0.001%)	ND	PASS
Compliant Pesticide Panel	SOP-111	WIP-100008 : Product specification for Bulk Dog Chews, Oregon Action limits apply	ND	PASS
Microbial - Full Panel	SOP-111	Complies with USP 61/62	ND	PASS
CA Compliant Heavy Metal Panel	SOP-111	Arsenic (As): ≤1.5 PPM Cadmium (Cd): ≤0.5 PPM Mercury (Hg): ≤1.0 PPM Lead (Pb): ≤0.5 PPM	ND	PASS

* *Level of Quantitation, † Parts Per Million
*Nothing Less Than

Quality Certified by: Kayla Kolber 08/09/2021

Kayla Kolber Date

Quality Assurance Technician

certificate ID
1HC97

Chew



sample ID Lot# 21215A
source ID 1Z435FV90292362677

total cannabinoids **3.3mg** per **chew**

THC‡ ND
CBD‡ 3.0mg

order 11466 rec'd 8/5/2021 1:35:46 PM

7USC1639 Certificate of Analysis

This Product Has Been Tested and Complies with 7USC1639o(1)

Stillwater Laboratories

Potency per chew — MSP-7.5.1.4

		LOD | LOQ | error (95%CI k=2)
total cannabinoids	**3.3mg**	**0.02 | 0.06 | ±0.12mg**
total THC‡	**ND**	**0.02 | 0.06 | ±0.06mg**
total THC (THC+THCa)	**ND**	**0.02 | 0.06 | ±0.06mg**
total CBD‡	3.0mg	0.02 | 0.06 | ±0.11mg
total CBD (CBD+CBDa)	3.0mg	0.02 | 0.06 | ±0.11mg
tetrahydrocannabolic acid (THCa)	ND	0.02 | 0.06 | ±0.06mg
Δ9-tetrahydrocannabinol (Δ9 THC)	ND	0.02 | 0.06 | ±0.06mg
Δ8-tetrahydrocannabinol (Δ8 THC)	ND	0.03 | 0.08 | ±0.08mg
tetrahydrocannabivarin (THCv)	ND	0.02 | 0.06 | ±0.06mg
cannabidiolic acid (CBDa)	ND	0.02 | 0.05 | ±0.05mg
cannabidiol (CBD)	3.0mg	0.02 | 0.06 | ±0.11mg
cannabidivarin (CBDv)	0.1mg	0.02 | 0.06 | ±0.06mg
cannabigerolic acid (CBGa)	ND	0.02 | 0.05 | ±0.05mg
cannabigerol (CBG)	ND	0.01 | 0.02 | ±0.02mg
cannabinol (CBN)	ND	0.01 | 0.03 | ±0.03mg
cannabichromene (CBC)	0.3mg	0.02 | 0.06 | ±0.07mg

Terpenes — MSP-7.5.1.6



total terpenes	**ND**
linalool	ND
β-myrcene	ND
D-limonene	ND
α-pinene	ND
β-pinene	ND
ocimene	ND
terpinolene	ND
α-humulene	ND
β-caryophyllene	ND
α-bisabolol	ND
camphene	ND
Δ3-carene	ND
caryophyllene oxide	ND
para-cymene	ND
eucalyptol	ND
geraniol	ND
guaiol	ND

Microbial — MSP-7.5.1.10

		limit	LOD | LOQ | error	result
E.coli	ND	0CFU	0.0 | 0.1 | ±0.1CFU	PASS
Salmonella sp.	ND	0CFU	0.0 | 0.1 | ±0.1CFU	PASS
molds	ND	10000CFU	1.7 | 5.2 | ±5.2CFU	PASS
Ochratoxin A	ND	20 ppb	0.25 | 1.0 | ±1.0%	PASS
Aflatoxin B1B2G1G2	ND	20 ppb	0.25 | 1.0 | ±1.0%	PASS

Solvents — MSP-7.5.1.7

		limit	LOD | LOQ | error	result
Acetone	ND	5000 ppm	0.6 | 1.9 | ±1.9 ppm	PASS
Acetonitrile	ND	410 ppm	0.6 | 1.7 | ±1.7 ppm	PASS
Benzene	ND	0 ppm	0.0 | 0.1 | ±0.1 ppm	PASS
Butane	ND	5000 ppm	1.3 | 3.9 | ±3.9 ppm	PASS
Chloroform	ND	0 ppm	0.1 | 0.2 | ±0.2 ppm	PASS
Cyclohexane	ND	0 ppm	0.5 | 1.5 | ±1.5 ppm	PASS
Ethanol	ND	10000 ppm	0.7 | 2.0 | ±2.0 ppm	PASS
Heptane	ND	5000 ppm	0.4 | 1.1 | ±1.1 ppm	PASS
Hexane	ND	290 ppm	0.5 | 1.5 | ±1.5 ppm	PASS
Isopropyl alcohol	ND	5000 ppm	0.6 | 1.8 | ±1.8 ppm	PASS
Methanol	ND	3000 ppm	0.5 | 1.5 | ±1.5 ppm	PASS
Pentane	ND	5000 ppm	0.2 | 0.5 | ±0.5 ppm	PASS
Propane	ND	5000 ppm	0.5 | 1.5 | ±1.5 ppm	PASS
Toluene	ND	890 ppm	0.3 | 0.9 | ±0.9 ppm	PASS
Xylenes	ND	2170 ppm	0.3 | 0.9 | ±0.9 ppm	PASS

Metals — MSP-7.5.1.11

		limit	LOD | LOQ | error	result
Arsenic	ND	1500 ppb	7.9 | 23.6 | ±23.6 ppb	PASS
Cadmium	ND	500 ppb	8.5 | 25.4 | ±25.4 ppb	PASS
Lead	ND	500 ppb	13.2 | 39.6 | ±39.6 ppb	PASS
Mercury	ND	300 ppb	6.6 | 19.9 | ±19.9 ppb	PASS

Pesticides — MSP-7.5.1.8

		limit	LOD | LOQ | error	result
Pyrethrin	ND	1.00 ppm	0.002 | 0.005 | ±0.005 ppm	PASS
Pyridaben	ND	3.00 ppm	0.001 | 0.002 | ±0.002 ppm	PASS
Spinetoram	ND	3.00 ppm	0.002 | 0.007 | ±0.007 ppm	PASS
Spinosad	ND	3.00 ppm	0.004 | 0.013 | ±0.013 ppm	PASS
Spiromesifen	ND	12.00 ppm	0.002 | 0.006 | ±0.006 ppm	PASS
Spirotetramat	ND	13.00 ppm	0.002 | 0.005 | ±0.005 ppm	PASS
Spiroxamine	ND	0.00 ppm	0.001 | 0.002 | ±0.002 ppm	PASS
Tebuconazole	ND	2.00 ppm	0.003 | 0.010 | ±0.010 ppm	PASS
Thiacloprid	ND	0.10 ppm	0.001 | 0.002 | ±0.002 ppm	PASS
Thiamethoxam	ND	4.50 ppm	0.002 | 0.006 | ±0.006 ppm	PASS
Trifloxystrobin	ND	30.00 ppm	0.001 | 0.004 | ±0.004 ppm	PASS

Pesticides — MSP-7.5.1.8

		% limit	LOD | LOQ | error	result
Abamectin	ND	0.30 ppm	0.005 | 0.014 | ±0.014 ppm	PASS
Acephate	ND	5.00 ppm	0.005 | 0.015 | ±0.015 ppm	PASS
Acequinocyl	ND	4.00 ppm	0.004 | 0.012 | ±0.012 ppm	PASS
Acetamiprid	ND	5.00 ppm	0.003 | 0.010 | ±0.010 ppm	PASS
Aldicarb	ND	0.00 ppm	0.001 | 0.004 | ±0.004 ppm	PASS
Azoxystrobin	ND	40.00 ppm	0.001 | 0.004 | ±0.004 ppm	PASS
Bifenazate	ND	5.00 ppm	0.001 | 0.003 | ±0.003 ppm	PASS
Bifenthrin	ND	0.50 ppm	0.001 | 0.002 | ±0.002 ppm	PASS
Boscalid	ND	10.00 ppm	0.013 | 0.040 | ±0.040 ppm	PASS
Carbaryl	ND	0.50 ppm	0.005 | 0.016 | ±0.016 ppm	PASS
Carbofuran	ND	0.00 ppm	0.001 | 0.003 | ±0.003 ppm	PASS
Chloantraniliprole	ND	40.00 ppm	0.013 | 0.038 | ±0.038 ppm	PASS
Chlorfenapyr	ND	0.00 ppm	0.003 | 0.010 | ±0.010 ppm	PASS
Chlorpyrifos	ND	0.00 ppm	0.027 | 0.080 | ±0.080 ppm	PASS
Clofentezine	ND	0.50 ppm	0.005 | 0.015 | ±0.015 ppm	PASS
Coumaphos	ND	0.00 ppm	0.003 | 0.010 | ±0.010 ppm	PASS
Cyfluthrin	ND	1.00 ppm	0.005 | 0.014 | ±0.014 ppm	PASS
Cypermethrin	ND	1.00 ppm	0.003 | 0.010 | ±0.010 ppm	PASS
Daminozide	ND	0.00 ppm	0.018 | 0.054 | ±0.054 ppm	PASS
Dichlorvos	ND	0.00 ppm	0.009 | 0.028 | ±0.028 ppm	PASS
Diazinon	ND	0.20 ppm	0.001 | 0.002 | ±0.002 ppm	PASS
Dimethoate	ND	0.00 ppm	0.001 | 0.004 | ±0.004 ppm	PASS
Etoxazole	ND	1.50 ppm	0.002 | 0.007 | ±0.007 ppm	PASS
Fenoxycarb	ND	0.00 ppm	0.002 | 0.007 | ±0.007 ppm	PASS
Fenpyroximate	ND	2.00 ppm	0.001 | 0.002 | ±0.002 ppm	PASS
Fipronil	ND	0.00 ppm	0.005 | 0.015 | ±0.015 ppm	PASS
Flonicamid	ND	2.00 ppm	0.064 | 0.193 | ±0.193 ppm	PASS
Fludioxonil	ND	30.00 ppm	0.004 | 0.013 | ±0.013 ppm	PASS
Hexythiazox	ND	2.00 ppm	0.001 | 0.002 | ±0.002 ppm	PASS
Imazalil	ND	0.00 ppm	0.004 | 0.013 | ±0.013 ppm	PASS
Imidacloprid	ND	3.00 ppm	0.001 | 0.002 | ±0.002 ppm	PASS
Malathion	ND	5.00 ppm	0.003 | 0.010 | ±0.010 ppm	PASS
Metalaxyl	ND	15.00 ppm	0.005 | 0.015 | ±0.015 ppm	PASS
Methiocarb	ND	0.00 ppm	0.002 | 0.007 | ±0.007 ppm	PASS
Methomyl	ND	0.10 ppm	<0.001 | 0.001 | ±0.001 ppm	PASS
Methyl parathion	ND	0.00 ppm	0.001 | 0.002 | ±0.002 ppm	PASS
Mevinphos	ND	0.00 ppm	0.003 | 0.010 | ±0.010 ppm	PASS
Myclobutanil	ND	9.00 ppm	0.001 | 0.002 | ±0.002 ppm	PASS
Naled	ND	0.50 ppm	0.003 | 0.010 | ±0.010 ppm	PASS
Oxamyl	ND	0.20 ppm	0.001 | 0.004 | ±0.004 ppm	PASS
Paclobutrazol	ND	0.00 ppm	0.002 | 0.005 | ±0.005 ppm	PASS
Permethrin	ND	20.00 ppm	0.006 | 0.019 | ±0.019 ppm	PASS
Phosmet	ND	0.20 ppm	0.002 | 0.006 | ±0.006 ppm	PASS
Piperonylbutoxide	ND	8.00 ppm	0.007 | 0.020 | ±0.020 ppm	PASS
Prallethrin	ND	0.40 ppm	0.002 | 0.007 | ±0.007 ppm	PASS
Propiconazole	ND	20.00 ppm	0.002 | 0.007 | ±0.007 ppm	PASS
Propoxur	ND	0.00 ppm	0.004 | 0.011 | ±0.011 ppm	PASS

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

INSTRUMENTS: Potency by HPLC (LC2030C-UV), solvents and terpenes by GCMS (QP2020/HS20), pesticides and mycotoxins by LCMSMS (LC8060), microbial by qPCR (AriaMx) and plating (Hardy Diagnostics), metals by ICPMS (ICPMS-2030)

• All testing was completed onsite at 6073 US93N, Olney MT •• Potency (cannabinoid concentration) is calcuated as: [cannabioid] = $[\text{cannabinoid}]_{HPLC} \times \text{volume}_{dilution}/m_{dry}$. ••• Decarboxyted cannabinoid concentration is calculated $XXX_{total} = 0.877 \times XXXa + XXX$ •••• Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; LOD is the limit of detection ($3.3s_i$), LOQ is the limit of quantification (3xLOD), and experimental error is calculated from weighing, dilution, and interpolation error using the formula $s_g^2 = \sum(\partial f/\partial i)^2 s_i^2$ where i is the contributor to error. The 95% confidence range is calculated from: (concentration) $\pm t_{CL90} \times s_g$. Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable. ‡ = decarbed

Certified by:

ASA PFC Laboratory

A2LA ACCREDITED
CERT #s 4961.01, 4961.02 & 4961.03

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