

Certificate of Quality Assurance

PRODUCT NAME: Dog Treats
PRODUCT STRENGTH: 2 mg
LOT NUMBER: CHEW-T239
MANUFACTURER BATCH #s: CODSWC19-3(4-9)
DATE OF MANUFACTURE: 10/9/2019
Expiration date is 18 months under sealed conditions.
DATES OF ANALYSES: 7/8/2019, 7/9/2019
ACTIVE INGREDIENT: Phytocannabinoid-Rich Hemp Oil
INACTIVE INGREDIENTS: See next page.

JOYTM

ORGANICS

Physical Attributes of Raw Hemp Oil

Attribute	Acceptance Criteria	Result
Appearance	Viscous Dark Amber Oil Possible Crystal Formation	Conforms
Aroma	Characteristic Hemp Aroma	Conforms
Dissolution	Not Cloudy or Turbid, Characteristic Color	Conforms
Microbial Testing	Total Aerobic Count <2000 cfu/g Total Yeast and Mold <2000 cfu/g	Conforms

Cannabinoid Potency of Raw Hemp Oil

Cannabinoid	Weight %
CBD	0.05
CBG	<0.03
CBN	<0.03
THC	ND
CBC	<0.03
THC-A	ND
CBD-A	<0.03

Pesticides*

Compound	Result	Compound	Result
Acequinocil	ND	Spinosad	ND
Pyrethrium	ND	Spirotetramat	ND
Spiromesifin	ND	Bifenazate	ND
Abamectin	ND	Fenoxycarb	ND
Imidacloprid	ND	Paclobutrazol	ND

Terpene Results*

Compound	Weight %	Compound	Weight %
β -Bisabolene	1.0-3.0	Camphene	0.1-0.2
β -Farnesene	1.0-2.0	E-Farnesene	0.1-0.2
Gualol	0.5-2.0	Farnesol	0.1-0.2
β -Maaliene	0.5-2.0	α -Bisabolol	< 0.1
Calarene	0.5-1.5	p-Cymene	< 0.1
β -Caryophyllene	0.1-1.0	Linalool	< 0.1
α -Humulene	0.1-1.0	Myrcene	< 0.1
Cadinene	0.1-1.0	Phytol	< 0.1
α -Gurjunene	0.1-0.5	Isopulegol	< 0.1
d-Limonene	0.1-0.5	Terpinene	< 0.1
Nerolidol	0.1-0.5	Geraniol	< 0.1
α -Pinene	0.1-0.5	Myrcene	< 0.1
Aristolene	0.1-0.3	γ -Terpinene	< 0.1
Eucalyptol	0.1-0.2	δ -3-Carene	< 0.1

Residual Solvents*

Solvent	Weight %
Acetone	Compliant with USP<467>
Butane	Compliant with USP<467>
Ethanol	Compliant with USP<467>
Hexane	Compliant with USP<467>
Isobutane	Compliant with USP<467>
Isopropanol	Compliant with USP<467>
Pentane	Compliant with USP<467>

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ORGANICS

INACTIVE INGREDIENTS: Water, dried brewer's yeast, glycerin, gum arabic, sodium alginate, beef liver powder, natural bacon flavor, flaxseed oil, microcrystalline cellulose, organic sweet potato powder, sunflower lecithin (non-GMO), citrus pectin, dextrin, vitamin E, sodium propionate, calcium sulfate dihydrate, natural mixed tocopherols (natural preservative)

Heavy Metals*

Metal	Result
Cadmium	Compliant with USP<233>
Lead	Compliant with USP<233>
Arsenic	Compliant with USP<233>
Mercury	Compliant with USP<233>

Analysis Results for Finished Product

Attribute	Acceptance Criteria	Result
Appearance	Soft solid dark brown cylinders	Conforms
Aroma	Characteristic of product	Conforms
Cannabidiol Content	1.8 to 2.2 mg per chew	Conforms
THC Content	None Detected	Conforms

* Results based on testing of multiple batches of hemp oil raw material.

Quality Certified by:



Matthew Plenert, Ph.D
Head Chemist and Laboratory Manager

10-22-19

Date

QC Unit released by:



David Boaz
QC Manager

10-22-19

Date



CERTIFICATE OF ANALYSIS



SAMPLE INFORMATION

Sample Name: Dog Chews
Sample Id: 131611
Collected: 08/21/2019 10:03
Serving Size: 1 treat
Overall Result: Pass

Sample Matrix: Edible
Batch Id: 190815T193
Received: 08/21/2019 10:27
Servings Per Pkg: 1
Production Date: 08/20/2019

CULTIVATOR INFO

Business Name:
City:
Zip Code: n/a

Street Address:
State:
License:

CANNABINOID ANALYSIS

i Total THC, CBD value(s) have been decarboxylated.

TOTAL THC: ND per serving (ND) (ND)
TOTAL CBD: 1.730 mg per serving (0.4119 mg/g) (0.0412 %)
TOTAL CANNABINOIDS: 1.730 mg per serving (0.4119 mg/g) (0.0412 %)

TEST TYPE RESULT: N/A
UNIT OF MEASUREMENT: Milligrams per Gram(mg/g)

ANALYTE	RESULT	LOD	LLOQ	ANALYTE	RESULT	LOD	LLOQ
D9THC	ND	0.0100	0.0250	D8THC	ND	0.0100	0.0250
CBG	ND	0.0100	0.0250	CBC	ND	0.0100	0.0250
THCv	ND	0.0100	0.0250	CBD	0.4119 mg/g (0.0412 %)	0.0100	0.0250
CBN	ND	0.0100	0.0250	CBDv	<1 mg/g (<1 mg/g)	0.0100	0.0250
THCa	ND	0.0100	0.0250	CBGa	ND	0.0100	0.0250
CBDa	ND	0.0100	0.0250				

ADDITIONAL INFORMATION

Method: SOP-TECH-001
Instrument: UPLC-DAD

Sample Prepped 08/22/2019 15:34
Sample Analyzed 08/22/2019 15:42

Sample Approved 08/23/2019 18:22





CERTIFICATE OF ANALYSIS

CHEMICAL RESIDUE ANALYSIS

TEST TYPE RESULT: **Pass**
 UNIT OF MEASUREMENT: **Micrograms per Gram(ug/g)**

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Abamectin	ND	0.0200	0.0400	0.3000 Pass	Acephate	ND	0.0200	0.0400	5.000 Pass
Acequinocyl	ND	0.0200	0.0400	4.000 Pass	Acetamidrid	ND	0.0200	0.0400	5.000 Pass
Aldicarb	ND	0.0200	0.0400	0.0 Pass	Azoxystrobin	ND	0.0200	0.0400	40.00 Pass
Bifenazate	ND	0.0200	0.0400	5.000 Pass	Bifenthrin	ND	0.0200	0.0400	0.5000 Pass
Boscalid	ND	0.0200	0.0400	10.00 Pass	Carbaryl	ND	0.0200	0.0400	0.5000 Pass
Carbofuran	ND	0.0200	0.0400	0.0 Pass	Chlorantranilprole	ND	0.0200	0.0400	40.00 Pass
Chlorfenapyr	ND	0.0200	0.0400	0.0 Pass	Chlorpyrifos	ND	0.0200	0.0400	0.0 Pass
Clofentezine	ND	0.0200	0.0400	0.5000 Pass	Coumaphos	ND	0.0200	0.0400	0.0 Pass
Cyfluthrin	ND	0.1000	0.2000	1.000 Pass	Cypermethrin	ND	0.0400	0.1000	1.000 Pass
Daminozide	ND	0.0200	0.0400	0.0 Pass	Diazinon	ND	0.0200	0.0400	0.2000 Pass
Dichlorvos	ND	0.0200	0.0400	0.0 Pass	Dimethoate	ND	0.0200	0.0400	0.0 Pass
Dimethomorph	ND	0.0099	0.0198	20.00 Pass	Ethoprophos	ND	0.0200	0.0400	0.0 Pass
Etofenprox	ND	0.0200	0.0400	0.0 Pass	Etoxazole	ND	0.0200	0.0400	1.500 Pass
Fenhexamid	ND	0.0200	0.0400	10.00 Pass	Fenoxycarb	ND	0.0200	0.0400	0.0 Pass
Fenpyroximate	ND	0.0200	0.0400	2.000 Pass	Fipronil	ND	0.0200	0.0400	0.0 Pass
Flonicamid	ND	0.0200	0.0400	2.000 Pass	Fludioxonil	ND	0.0200	0.0400	30.00 Pass
Hexythiazox	ND	0.0200	0.0400	2.000 Pass	Imazalil	ND	0.0200	0.0400	0.0 Pass
Imidacloprid	ND	0.0200	0.0400	3.000 Pass	KresoximMethyl	ND	0.0200	0.0400	1.000 Pass
Malathion	ND	0.0200	0.0400	5.000 Pass	Metalaxyl	ND	0.0200	0.0400	15.00 Pass
Methiocarb	ND	0.0200	0.0400	0.0 Pass	Methomyl	ND	0.0200	0.0400	0.1000 Pass
Mevinphos	ND	0.0200	0.0400	0.0 Pass	Myclobutanil	ND	0.0200	0.0400	9.000 Pass
Naled	ND	0.0200	0.0400	0.5000 Pass	Oxamyl	ND	0.0200	0.0400	0.2000 Pass
Pacllobutrazol	ND	0.0200	0.0400	0.0 Pass	Permethrins	ND	0.0200	0.0400	20.00 Pass
Phosmet	ND	0.0200	0.0400	0.2000 Pass	PiperonylButoxide	ND	0.0200	0.0400	8.000 Pass
Prallethrin	ND	0.0200	0.0400	0.4000 Pass	Propiconazole	ND	0.0200	0.0400	20.00 Pass
Propoxur	ND	0.0200	0.0400	0.0 Pass	Pyrethrins	ND	0.0178	0.0356	1.000 Pass
Pyridaben	ND	0.0200	0.0400	3.000 Pass	Spinetoram	ND	0.0200	0.0400	3.000 Pass
Spinosad	ND	0.0200	0.0400	3.000 Pass	Spiromesifen	ND	0.0200	0.0400	12.00 Pass
Spirotetramat	ND	0.0200	0.0400	13.00 Pass	Spiroxamine	ND	0.0200	0.0400	0.4000 Pass
Tebuconazole	ND	0.0200	0.0400	2.000 Pass	Thiacloprid	ND	0.0200	0.0400	0.0 Pass
Thiamethoxam	ND	0.0200	0.0400	4.500 Pass	Trifloxystrobin	ND	0.0200	0.0400	30.00 Pass

ADDITIONAL INFORMATION
 Method: SOP-TECH-002
 Instrument: LC-MS/MS

Sample Prepped 08/22/2019 11:24
 Sample Analyzed 08/22/2019 11:28

Sample Approved 08/26/2019 17:28





CERTIFICATE OF ANALYSIS

CHEMICAL RESIDUE GC ANALYSIS

TEST TYPE RESULT: **Pass**
UNIT OF MEASUREMENT: Micrograms per Gram(ug/g)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Captan	ND	0.1000	0.2000	5.000 Pass	Chlordane	ND	0.0400	0.1000	0.0 Pass
MethylParathion	ND	0.0400	0.1000	0.0 Pass	PCNB	ND	0.0200	0.0400	0.2000 Pass

ADDITIONAL INFORMATION

Method: SOP-TECH-010 Sample Prepped 08/22/2019 11:19 Sample Approved 08/23/2019 16:32
Instrument: GC-MS/MS Sample Analyzed 08/22/2019 11:28

HEAVY METALS

TEST TYPE RESULT: **Pass**
UNIT OF MEASUREMENT: Micrograms per Gram(ug/g)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Arsenic	ND	0.0200	0.0500	1.500 Pass	Cadmium	0.0526 ug/g	0.0050	0.0500	0.5000 Pass
Lead	0.0607 ug/g	0.0100	0.0500	0.5000 Pass	Mercury	<LLOQ	0.0030	0.0500	3.000 Pass

ADDITIONAL INFORMATION

Method: SOP-TECH-013 Sample Prepped 08/22/2019 07:36 Sample Approved 08/22/2019 17:41
Instrument: ICP-MS Sample Analyzed 08/22/2019 07:38

This report applies to the sample investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. This report provides technical results for a specific sample and the report shall not be altered, modified, supplemented, or abstracted in any manner. Any violation of these conditions renders the report and its results void.

All LQC samples required by state regulations were performed and met the acceptance criteria.

DATA REVIEWED AND APPROVED BY

09/11/2019

Swetha Kaul, PhD
Chief Scientific Officer

Date





12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Job Number: 19-010356
Report Number: 19-010356-00
Report Date: 09/04/2019
ORELAP#: OR100028
Purchase Order:
Received: 08/28/19 11:02

This report cannot be used for ODA, OHA or OLCC compliance requirements.

Product identity: Chew T193
Laboratory ID: 19-010356-0001

Client/Metric ID: .
Sample Date:

Summary

Microbiology:

Less than LOQ for all analytes.



This report cannot be used for ODA, OHA or OLCC compliance requirements.

Customer: My CBD Test
Product identity: Chew T193
Client/Metric ID: .
Sample Date:
Laboratory ID: 19-010356-0001
Temp: 25.4 °C
Relinquished by: UPS

Sample Results

Microbiology								
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	1907793	08/31/19	AOAC 2014.05 (RAPID)	X
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	1907793	08/31/19	AOAC 2014.05 (RAPID)	X



This report cannot be used for ODA, OHA or OLCC compliance requirements.

Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

Units of Measure

cfu/g = Colony forming units per gram

% wt = $\mu\text{g/g}$ divided by 10,000

Glossary of Qualifiers

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager