

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** Joy Organics CBD Dog Chews  
**PRODUCT STRENGTH:** 2 mg / chew  
**BATCH:** 22080C  
**BEST BY DATE:** 11/2023  
**Bulk LOT:** 3004364

*\*Click on the links to view third-party reports\**

### Physical Attributes

Test	Method	Specification	Results
Color	Joy Internal	Brown	PASS
Odor	Joy Internal	Beef and grains, with some yeast	PASS
Appearance	Joy Internal	Squat cylindrical dog treats a plastic amber container	PASS
Primary Package Eval.	Joy Internal	Container clean and free of filth. Container caps tight and pressure seal is intact.	PASS
Secondary Package Eval.	Joy Internal	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
<b>Potency - Total CBD</b>	HPLC-UV DAD	LOQ*: ≥ 2 mg / chew	<b>2.1 mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	LOQ: <0.01% (broad spectrum)	<b>&lt;0.01%</b>	PASS
<b>Pesticide Panel</b>	LCMS-MS	Not Tested	<b>N/A</b>	N/A
<b>Microbial</b> Escherichia coli (STEC)	qPCR	Complies with USP 61/62	<b>Absent</b>	PASS
<b>Microbial</b> Salmonella	qPCR	Complies with USP 61/62	<b>Absent</b>	PASS
<b>Microbial</b> Yeast and Mold	Culture Plating	Complies with USP 61/62	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Coliforms	Culture Plating	Complies with USP 61/62	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Aerobic Count	Culture Plating	Complies with USP 61/62	<b>3.5 x 10<sup>3</sup></b>	PASS
<b>Heavy Metals</b>	ICP-MS	Arsenic (As): ≤1.5 ppm† Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	<b>Below LOQ</b>	PASS
<b>Mycotoxins</b>	LCMS-MS	Total Aflatoxins <20 ppb†† Aflatoxin B1 < 20 ppb Ochratoxin < 20 ppb	<b>Below LOQ</b>	PASS
<b>Residual Solvents</b>	GC-MS	Not Tested	<b>N/A</b>	N/A

\*Level of Quantification  
† Parts Per Million †† Part Per Billion

Quality Certified

  
 Keegan Schlittler  
 Quality Assurance Manager

03/29/2022

Date






Prepared for:

**JOY ORGANICS**
**CHEW**

Batch ID or Lot Number: <b>22080A</b>	Test: <b>Microbial Contaminants</b>	Reported: <b>3/28/22</b>	Location: 5042 Technology Parkway Ste. 50 FT. COLLINS, CO 80528
Matrix: Finished Product	Test ID: T000199905	Started: 3/25/22	USDA License: N/A
Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial	Received: 03/25/2022 @ 10:31 AM	Sampler ID: N/A

**MICROBIAL CONTAMINANTS DETERMINATION**

Contaminant	Method	LOD	LLOQ	ULOQ	Result	Notes
<b>Total Aerobic Count*</b>	TM-26, Culture Plating	10 <sup>2</sup> CFU/g	10 <sup>3</sup> CFU/g	1.5x10 <sup>5</sup> CFU/g	3.5x10 <sup>3</sup> CFU/g	Free from visual mold, mildew, and foreign matter
<b>Total Coliforms*</b>	TM-27, Culture Plating	10 <sup>1</sup> CFU/g	10 <sup>2</sup> CFU/g	1.5x10 <sup>4</sup> CFU/g	None Detected	
<b>Total Yeast and Mold*</b>	TM-24, Culture Plating	10 <sup>1</sup> CFU/g	10 <sup>2</sup> CFU/g	1.5x10 <sup>4</sup> CFU/g	None Detected	
<b>STEC</b>	TM-25, PCR	10 <sup>0</sup> CFU/25 g	NA	NA	Absent	
<b>Salmonella</b>	TM-25, PCR	10 <sup>0</sup> CFU/25 g	NA	NA	Absent	

  
 Jackson Osaghae-Nosa  
 3/28/2022  
 4:16:00 PM

  
 Brianne Maillot  
 3/28/2022  
 4:34:00 PM

PREPARED BY / DATE

APPROVED BY / DATE

**Definitions**

LOD = Limit of Detection | LLOQ = Lower Limit of Quantitation | ULOQ = Upper Limit of Quantitation

 CFU/g = Colony Forming Units per Gram | STEC = Shiga Toxin-Producing *E. coli*

\* 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

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC 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 Botanacor Laboratories, LLC.



CDPHE Certified



Certificate #4329.02