



CBD Gel Tabs
Sample Matrix:
CBD/HEMP
Edibles
(Ingestion)



License No. 800025015
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

HEMP-EMU
295 GOOLSBY BLVD
DEERFIELD BEACH, FL 33442

Batch # EC545001
Batch Date: 2021-02-01
Extracted From: hemp

Sampling Method: MSP 7.3.1 Test Reg
State: Florida

Production Facility: Emerald Corp
Production Date: 2021-02-01

Order # HEM210507-010013
Order Date: 2021-05-07
Sample # AABH989

Sampling Date: 2021-05-16
Lab Batch Date: 2021-05-16
Completion Date: 2021-05-25

Initial Gross Weight: 37.544 g
Net Weight: 16.476 g

Number of Units: 1
Net Weight per Unit: 16476.000 mg



Product Image

Potency
Tested

Heavy Metals
Passed

Mycotoxins
Passed

Pesticides
Passed

Residual
Solvents
Passed

Pathogenic
Microbiology
Passed

Listeria
Monocytogenes
Passed

Potency Summary

Potency - 11
Specimen Weight: 78.970 mg

Tested
(HPLC/LCMS)

Total THC None Detected	Total CBD 13.310% 2,192.956mg
Total CBG None Detected	Total CBN None Detected
Other Cannabinoids 0.057% 9.352mg	Total Cannabinoids 13.367% 2,202.307mg

Pieces For Panel: 30

Analyte	Dilution (1:n)	LOD (%)	LOQ (%)	Result (mg/g)	(%)
CBD	10.000	0.000054	0.001	133.100	13.310
CBDV	10.000	0.000065	0.001	0.568	0.057
CBC	10.000	0.000018	0.001	<LOQ	<LOQ
THCV	10.000	0.000007	0.001	<LOQ	<LOQ
Delta-9 THC	10.000	0.000013	0.001	<LOQ	<LOQ
Delta-8 THC	10.000	0.000026	0.001	<LOQ	<LOQ
CBN	10.000	0.000014	0.001	<LOQ	<LOQ
CBGA	10.000	0.00008	0.001	<LOQ	<LOQ
CBG	10.000	0.000248	0.001	<LOQ	<LOQ
CBDA	10.000	0.00001	0.001	<LOQ	<LOQ
THCA-A	10.000	0.000032	0.001	<LOQ	<LOQ

Xueli Gao
Ph.D., DABT
Lab Toxicologist

Aixia Sun
D.H.Sc., M.Sc., B.Sc., MT (AAB)
Lab Director/Principal Scientist



Definitions and Abbreviations used in this report: *Total CBD = CBD + (CBD-A * 0.877), *Total THC = THCA-A * 0.877 + Delta 9 THC, *CBG Total = (CBGA * 0.877) + CBG, *CBN Total = (CBNA * 0.877) + CBN, *Other Cannabinoids Total = CBC + CBDV + THCV + THCV-A, *Total Detected Cannabinoids = CBD Total + CBG Total + CBN Total + THC Total + CBC + CBDV + THCV + THCV-A, *Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, , LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, *Measurement of Uncertainty = +/- 5%



This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Accredited by a third-party accrediting body as a competent testing laboratory pursuant to ISO/IEC 17025 of the International Organization for Standardization.



License No. 800025015
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

HEMP-EMU 295 GOOLSBY BLVD DEERFIELD BEACH, FL 33442	Batch # EC545001 Batch Date: 2021-02-01 Extracted From: hemp	Sampling Method: MSP 7.3.1 Test Reg State: Florida	Production Facility: Emerald Corp Production Date: 2021-02-01
Order # HEM210507-010013 Order Date: 2021-05-07 Sample # AABH989	Sampling Date: 2021-05-16 Lab Batch Date: 2021-05-16 Completion Date: 2021-05-25	Initial Gross Weight: 37.544 g Net Weight: 16.476 g	Number of Units: 1 Net Weight per Unit: 16476.000 mg

H Heavy Metals Passed (ICP-MS)

Specimen Weight: 245.370 mg

Pieces For Panel: 30 Dilution Factor: 2.000

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Arsenic (As)	100	1500	<LOQ	Cadmium (Cd)	100	500	<LOQ
Lead (Pb)	100	500	<LOQ	Mercury (Hg)	100	3000	<LOQ

Mycotoxins Passed (LCMS)

Specimen Weight: 166.090 mg

Pieces For Panel: 30 Dilution Factor: 9.031

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Aflatoxin B1	6	20	<LOQ	Aflatoxin B2	6	20	<LOQ
Aflatoxin G1	6	20	<LOQ	Aflatoxin G2	6	20	<LOQ
Ochratoxin A	12	20	<LOQ				

Xueli Gao
Xueli Gao Lab Toxicologist
Ph.D., DABT

Aixia Sun
Aixia Sun Lab Director/Principal Scientist
D.H.Sc., M.Sc., B.Sc., MT (AAB)



Definitions and Abbreviations used in this report: *Total CBD = CBD + (CBD-A * 0.877), *Total THC = THCA-A * 0.877 + Delta 9 THC, *CBG Total = (CBGA * 0.877) + CBG, *CBN Total = (CBNA * 0.877) + CBN, *Other Cannabinoids Total = CBC + CBDV + THCV + THCV-A, *Total Detected Cannabinoids = CBD Total + CBG Total + CBN Total + THC Total + CBC + CBDV + THCV + THCV-A, *Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, , LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, *Measurement of Uncertainty = +/- 5%



This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Accredited by a third-party accrediting body as a competent testing laboratory pursuant to ISO/IEC 17025 of the International Organization for Standardization.



CBD Gel Tabs
Sample Matrix:
CBD/HEMP
Edibles
(Ingestion)



License No. 800025015
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

HEMP-EMU
295 GOOLSBY BLVD
DEERFIELD BEACH, FL 33442

Batch # EC545001
Batch Date: 2021-02-01
Extracted From: hemp

Sampling Method: MSP 7.3.1 Test Reg
State: Florida

Production Facility: Emerald Corp
Production Date: 2021-02-01

Order # HEM210507-010013
Order Date: 2021-05-07
Sample # AABH989

Sampling Date: 2021-05-16
Lab Batch Date: 2021-05-16
Completion Date: 2021-05-25

Initial Gross Weight: 37.544 g
Net Weight: 16.476 g

Number of Units: 1
Net Weight per Unit: 16476.000 mg



Pesticides FL V4

Specimen Weight: 166.090 mg

Passed
(LCMS/GCMS)

Pieces For Panel: 30 Dilution Factor: 9.031

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Abamectin	28.23	300	<LOQ	Acephate	30	3000	<LOQ
Acequinocyl	48	2000	<LOQ	Acetamiprid	30	3000	<LOQ
Aldicarb	30	100	<LOQ	Azoxystrobin	10	3000	<LOQ
Bifenazate	30	3000	<LOQ	Bifenthrin	30	500	<LOQ
Boscalid	10	3000	<LOQ	Captan	30	3000	<LOQ
Carbaryl	10	500	<LOQ	Carbofuran	10	100	<LOQ
Chlorantraniliprole	10	3000	<LOQ	Chlordane	10	100	<LOQ
Chlorfenapyr	30	100	<LOQ	Chloromequat Chloride	10	3000	<LOQ
Chlorpyrifos	30	100	<LOQ	Clofentezine	30	500	<LOQ
Coumaphos	48	100	<LOQ	Cyfluthrin	30	1000	<LOQ
Cypermethrin	30	1000	<LOQ	Daminozide	30	100	<LOQ
Diazinon	30	200	<LOQ	Dichlorvos	30	100	<LOQ
Dimethoate	30	100	<LOQ	Dimethomorph	48	3000	<LOQ
Ethoprophos	30	100	<LOQ	Etofenprox	30	100	<LOQ
Etoxazole	30	1500	<LOQ	Fenhexamid	10	3000	<LOQ
Fenoxycarb	30	100	<LOQ	Fenpyroximate	30	2000	<LOQ
Fipronil	30	100	<LOQ	Flonicamid	30	2000	<LOQ
Fludioxonil	48	3000	<LOQ	Hexythiazox	30	2000	<LOQ
Imazalil	30	100	<LOQ	Imidacloprid	30	3000	<LOQ
Kresoxim Methyl	30	1000	<LOQ	Malathion	30	2000	<LOQ
Metalaxyl	10	3000	<LOQ	Methiocarb	30	100	<LOQ
Methomyl	30	100	<LOQ	methyl-Parathion	10	100	<LOQ
Mevinphos	10	100	<LOQ	Myclobutanil	30	3000	<LOQ
Naled	30	500	<LOQ	Oxamyl	30	500	<LOQ
Paclotrazol	30	100	<LOQ	Pentachloronitrobenzene	10	200	<LOQ
Permethrin	30	1000	<LOQ	Phosmet	30	200	<LOQ
Piperonylbutoxide	30	3000	<LOQ	Prallethrin	30	400	<LOQ
Propiconazole	30	1000	<LOQ	Propoxur	30	100	<LOQ
Pyrethrins	30	1000	<LOQ	Pyridaben	30	3000	<LOQ
Spinetoram	10	3000	<LOQ	Spinosad	30	3000	<LOQ
Spiromesifen	30	3000	<LOQ	Spirotetramat	30	3000	<LOQ
Spiroxamine	30	100	<LOQ	Tebuconazole	30	1000	<LOQ
Thiacloprid	30	100	<LOQ	Thiamethoxam	30	1000	<LOQ
Trifloxystrobin	30	3000	<LOQ				

Xueli Gao
Xueli Gao Lab Toxicologist
Ph.D., DABT

Aixia Sun
Aixia Sun Lab Director/Principal Scientist
D.H.Sc., M.Sc., B.Sc., MT (AAB)



Definitions and Abbreviations used in this report: *Total CBD = CBD + (CBD-A * 0.877), *Total THC = THCA-A * 0.877 + Delta 9 THC, *CBG Total = (CBGA * 0.877) + CBG, *CBN Total = (CBNA * 0.877) + CBN, *Other Cannabinoids Total = CBC + CBDV + THCV + THCV-A, *Total Detected Cannabinoids = CBD Total + CBG Total + CBN Total + THC Total + CBC + CBDV + THCV + THCV-A, *Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, , LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, *Measurement of Uncertainty = +/- 5%



This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Accredited by a third-party accrediting body as a competent testing laboratory pursuant to ISO/IEC 17025 of the International Organization for Standardization.



License No. 800025015
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

HEMP-EMU 295 GOOLSBY BLVD DEERFIELD BEACH, FL 33442	Batch # EC545001 Batch Date: 2021-02-01 Extracted From: hemp	Sampling Method: MSP 7.3.1 Test Reg State: Florida	Production Facility: Emerald Corp Production Date: 2021-02-01
Order # HEM210507-010013 Order Date: 2021-05-07 Sample # AABH989	Sampling Date: 2021-05-16 Lab Batch Date: 2021-05-16 Completion Date: 2021-05-25	Initial Gross Weight: 37.544 g Net Weight: 16.476 g	Number of Units: 1 Net Weight per Unit: 16476.000 mg

Residual Solvents - FL (CBD) **Passed**
(GCMS)
Specimen Weight: 7.500 mg

Pieces For Panel: 30 Dilution Factor: 1.000

Analyte	LOQ (ppm)	Action Level (ppm)	Result (ppm)	Analyte	LOQ (ppm)	Action Level (ppm)	Result (ppm)
1,1-Dichloroethane	0.16	8	<LOQ	1,2-Dichloroethane	0.04	5	<LOQ
Acetone	2.08	5000	<LOQ	Acetonitrile	1.17	410	<LOQ
Benzene	0.02	2	<LOQ	Butanes	2.5	2000	<LOQ
Chloroform	0.04	60	<LOQ	Ethanol	2.78	5000	<LOQ
Ethyl Acetate	1.11	5000	<LOQ	Ethyl Ether	1.39	5000	<LOQ
Ethylene Oxide	0.1	5	<LOQ	Heptane	1.39	5000	<LOQ
Hexane	1.17	290	<LOQ	Isopropyl alcohol	1.39	500	<LOQ
Methanol	0.69	3000	<LOQ	Methylene chloride	2.43	600	<LOQ
Pentane	2.08	5000	<LOQ	Propane	5.83	2100	<LOQ
Toluene	2.92	890	<LOQ	Total Xylenes	2.92	2170	<LOQ
Trichloroethylene	0.49	80	<LOQ				

Xueli Gao Lab Toxicologist
Ph.D., DABT

Aixia Sun Lab Director/Principal Scientist
D.H.Sc., M.Sc., B.Sc., MT (AAB)



Definitions and Abbreviations used in this report: *Total CBD = CBD + (CBD-A * 0.877), *Total THC = THCA-A * 0.877 + Delta 9 THC, *CBG Total = (CBGA * 0.877) + CBG, *CBN Total = (CBNA * 0.877) + CBN, *Other Cannabinoids Total = CBC + CBDV + THCV + THCV-A, *Total Detected Cannabinoids = CBD Total + CBG Total + CBN Total + THC Total + CBC + CBDV + THCV + THCV-A, *Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, , LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, *Measurement of Uncertainty = +/- 5%



This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Accredited by a third-party accrediting body as a competent testing laboratory pursuant to ISO/IEC 17025 of the International Organization for Standardization.



License No. 800025015
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

HEMP-EMU 295 GOOLSBY BLVD DEERFIELD BEACH, FL 33442	Batch # EC545001 Batch Date: 2021-02-01 Extracted From: hemp	Sampling Method: MSP 7.3.1 Test Reg State: Florida	Production Facility: Emerald Corp Production Date: 2021-02-01
Order # HEM210507-010013 Order Date: 2021-05-07 Sample # AABH989	Sampling Date: 2021-05-16 Lab Batch Date: 2021-05-16 Completion Date: 2021-05-25	Initial Gross Weight: 37.544 g Net Weight: 16.476 g	Number of Units: 1 Net Weight per Unit: 16476.000 mg

Pathogenic Microbiology SAE (MicroArray) **Passed**
(Micro Array)
Specimen Weight: 1018.110 mg

Pieces For Panel: 30 Dilution Factor: 1.000

Analyte	Result (cfu/g)	Analyte	Result (cfu/g)
Aspergillus flavus	Absence in 1g	Aspergillus fumigatus	Absence in 1g
Aspergillus niger	Absence in 1g	Aspergillus terreus	Absence in 1g
Salmonella	Absence in 1g	STEC E. Coli	Absence in 1g

Listeria Monocytogenes **Passed**
(qPCR)
Specimen Weight: 1005.390 mg

Pieces For Panel: 30 Dilution Factor: 1.000

Analyte	Action Level (cfu/g)	Result
Listeria Monocytogenes	1	Absence in 1g

Xueli Gao Lab Toxicologist
Ph.D., DABT

Aixia Sun Lab Director/Principal Scientist
D.H.Sc., M.Sc., B.Sc., MT (AAB)



Definitions and Abbreviations used in this report: *Total CBD = CBD + (CBD-A * 0.877), *Total THC = THC-A * 0.877 + Delta 9 THC, *CBG Total = (CBGA * 0.877) + CBG, *CBN Total = (CBNA * 0.877) + CBN, *Other Cannabinoids Total = CBC + CBDV + THCV + THCV-A, *Total Detected Cannabinoids = CBD Total + CBG Total + CBN Total + THC Total + CBC + CBDV + THCV + THCV-A, *Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, , LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, *Measurement of Uncertainty = +/- 5%



This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Accredited by a third-party accrediting body as a competent testing laboratory pursuant to ISO/IEC 17025 of the International Organization for Standardization.