



# Certificate of Analysis

Oct 20, 2020 | Empire Standard LLC

29 Industrial Park Dr.  
Binghamton, NY, 13904, US



Sample:GA01013013-002

Harvest/Lot ID: 20279002

Seed to Sale #N/A

Batch Date :10/05/20

Batch#: 20279002

Sample Size Received: 60 ml

Retail Product Size: 30

Ordered : 10/07/20

Sampled : 10/07/20

Completed: 10/20/20 Expires: 10/20/21

Sampling Method: SOP Client Method

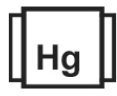
**TESTED**

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## PRODUCT IMAGE SAFETY RESULTS



Pesticides  
**PASSED**



Heavy Metals  
**PASSED**



Microbials  
**PASSED**



Mycotoxins  
**PASSED**



Residuals  
Solvents  
**TESTED**



Filtration  
**PASSED**



Water Activity  
**NOT TESTED**



Moisture  
**NOT TESTED**



Terpenes  
**NOT TESTED**

## MISC.

## CANNABINOID RESULTS



Total THC  
**0.119%**

THC/Container :35.700 mg



Total CBD  
**4.429%**

CBD/Container :1328.700 mg



Total Cannabinoids  
**4.716%**

Total Cannabinoids/Container  
:1414.800 mg

	<b>Filtration</b>	<b>PASSED</b>
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Analyzed By 457 Weight 1g Extraction date NA LOD(ppm) NA Extracted By NA

Analysis Method -SOP.T.40.013 Batch Date : 10/15/20 12:50:36

Analytical Batch -DA017423FIL Reviewed On - 10/15/20 17:02:11

Instrument Used : Filtration/Foreign Material Microscope

Running On :

This includes but is not limited to hair, insects, feces, packaging contaminants, and manufacturing waste and by-products. An SH-2B/T Stereo Microscope is use for inspection.

CBDV	CBDA	CBGA	CBG	CBD	THCV	CBN	D9-THC	D8-THC	CBC	THCA
0.020%	ND	ND	0.054%	4.429%	ND	ND	0.119%	ND	0.094%	ND
0.200 mg/g	ND	ND	0.540 mg/g	44.290 mg/g	ND	ND	1.190 mg/g	ND	0.940 mg/g	ND
LOD 0.001 %	0.001 %	0.001 %	0.001 %	0.0001 %	0.001 %	0.001 %	0.0001 %	0.001 %	0.001 %	0.001 %

## Cannabinoid Profile Test

Analyzed by 450 Weight 3.0074g Extraction date : 10/15/20 06:10:19 Extracted By : 1823  
Analysis Method -SOP.T.40.020, SOP.T.30.050 Reviewed On - 10/19/20 18:16:36 Batch Date : 10/15/20 08:27:03  
Analytical Batch -DA017367POT Instrument Used : DA-LC-003 Running On : 10/17/20 02:16:17

Reagent	Dilution	Consums. ID
032320.28	400	181019-274
101520.R08		280670723
062220.16		914C4-914AK
101520.R06		929C6-929H
		76262-590

Full spectrum cannabinoid analysis utilizing High Performance Liquid Chromatography with UV detection (HPLC-UV). (Method: SOP.T.30.050 for sample prep and Shimadzu High Sensitivity Method SOP.T.40.020 for analysis. LOQ for all cannabinoids is 1 mg/L).

This report shall not be reproduced, unless in its entirety, without written approval from Kaycha Labs. This report is an Kaycha Labs certification. The results relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. Void after 1 year from test end date. Cannabinoid content of batch material may vary depending on sampling error. IC=In-control QC parameter, NC=Non-controlled QC parameter, ND=Not Detected, NA=Not Analyzed, ppm=Parts Per Million, ppb=Parts Per Billion. Limit of Detection (LoD) and Limit Of Quantitation (LoQ) are terms used to describe the smallest concentration that can be reliably measured by an analytical procedure. RPD=Reproducibility of two measurements. Action Levels are State determined thresholds for human safety for consumption and/or inhalation. The result >99% are variable based on uncertainty of measurement (UM) for the analyte. The UM error is available from the lab upon request. The "Decision Rule" for the pass/fail does not include the UM. The limits are based on F.S. Rule 64-4.310.

Jorge Segredo  
Lab Director

State License # CMTL-0002  
ISO Accreditation # 97164



Signature

10/20/2020

Signed On



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**Empire Standard LLC**

29 Industrial Park Dr.  
Binghamton , NY, 13904, US

**Telephone:** 6077617126

**Email:** amman@empire-standard.com

**Sample : GA01013013-002**
**Harvest/LOT ID: 20279002**
**Batch# :** 20279002

**Sampled :** 10/07/20

**Ordered :** 10/07/20

**Sample Size Received :** 60 ml

**Completed :** 10/20/20 **Expires:** 10/20/21

**Sample Method :** SOP Client Method

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## Pesticides

**PASSED**

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
ABAMECTIN B1A	0.01	ppm	0.3	ND	PROPICONAZOLE	0.01	ppm	1	ND
ACEPHATE	0.01	ppm	3	ND	PROPOXUR	0.01	ppm	0.1	ND
ACEQUINOCYL	0.01	ppm	2	ND	PYRETHRINS	0.05	ppm	1	ND
ACETAMIPRID	0.01	ppm	3	ND	PYRIDABEN	0.02	ppm	3	ND
ALDICARB	0.01	ppm	0.1	ND	SPINETORAM	0.02	PPM	3	ND
AZOXYSTROBIN	0.01	ppm	3	ND	SPIROMESIFEN	0.01	ppm	3	ND
BIFENAZATE	0.01	ppm	3	ND	SPIROTETRAMAT	0.01	ppm	3	ND
BIFENTHRIN	0.01	ppm	0.5	ND	SPIROXAMINE	0.01	ppm	0.1	ND
BOSCALID	0.01	PPM	3	ND	TEBUCONAZOLE	0.01	ppm	1	ND
CARBARYL	0.05	ppm	0.5	ND	THIACLOPRID	0.01	ppm	0.1	ND
CARBOFURAN	0.01	ppm	0.1	ND	THIAMETHOXAM	0.05	ppm	1	ND
CHLORANTRANILIPROLE	0.1	ppm	3	ND	TOTAL CONTAMINANT LOAD (PESTICIDES)	0	PPM	20	ND
CHLORMEQUAT CHLORIDE	0.1	ppm	3	ND	TOTAL PERMETHRIN	0.01	ppm	1	ND
CHLORPYRIFOS	0.01	ppm	0.1	ND	TOTAL SPINOSAD	0.01	ppm	3	ND
CLOFENTEZINE	0.02	ppm	0.5	ND	TRIFLOXYSTROBIN	0.01	ppm	3	ND
COUMAPHOS	0.01	ppm	0.1	ND	CHLORDANE *	0.01	PPM	0.1	ND
DAMINOZIDE	0.01	ppm	0.1	ND	PENTACHLORONITROBENZENE (PCNB) *	0.01	PPM	0.2	ND
DIAZANON	0.01	ppm	0.2	ND	PARATHION-METHYL *	0.01	PPM	0.1	ND
DICHLORVOS	0.01	ppm	0.1	ND	CAPTAN *	0.025	PPM	3	ND
DIMETHOATE	0.01	ppm	0.1	ND	CHLORFENAPYR *	0.01	PPM	0.1	ND
DIMETHOMORPH	0.02	ppm	3	ND	CYFLUTHRIN *	0.01	PPM	1	ND
ETHOPROPHOS	0.01	ppm	0.1	ND	CYPERMETHRIN *	0.01	PPM	1	ND
ETOFENPROX	0.01	ppm	0.1	ND					
ETOXAZOLE	0.01	ppm	1.5	ND					
FENHEXAMID	0.01	ppm	3	ND					
FENOXYCARB	0.01	ppm	0.1	ND					
FENPYROXIMATE	0.01	ppm	2	ND					
FIPRONIL	0.01	ppm	0.1	ND					
FLONICAMID	0.01	ppm	2	ND					
FLUDIOXONIL	0.01	ppm	3	ND					
HEXYTHIAZOX	0.01	ppm	2	ND					
IMAZALIL	0.01	ppm	0.1	ND					
IMIDACLOPRID	0.04	ppm	3	ND					
KRESOXIM-METHYL	0.01	ppm	1	ND					
MALATHION	0.02	ppm	2	ND					
METALAXYL	0.01	ppm	3	ND					
METHIOCARB	0.01	ppm	0.1	ND					
METHOMYL	0.01	ppm	0.1	ND					
MEVINPHOS	0.01	ppm	0.1	ND					
MYCLOBUTANIL	0.01	ppm	3	ND					
NALED	0.025	ppm	0.5	ND					
OXAMYL	0.05	ppm	0.5	ND					
PACLOBUTRAZOL	0.01	ppm	0.1	ND					
PHOSMET	0.01	ppm	0.2	ND					
PIPERONYL BUTOXIDE	0.1	ppm	3	ND					
PRALLETHRIN	0.01	ppm	0.4	ND					



## Pesticides

**PASSED**
**Analyzed by** 585 , 1665 **Weight** 0.907g **Extraction date** 10/16/20 03:10:43 **Extracted By** 585 , 1665

**Analysis Method** - SOP.T.30.065, SOP.T.40.065 , SOP.T.30.065, SOP.T.40.070  
**Analytical Batch** - DA017408PES , DA017414VOL  
**Reviewed On** - 10/15/20 17:02:11  
**Instrument Used** : DA-LCMS-002\_DER (PES) , DA-GCMS-001  
**Running On** : 10/16/20 17:59:36 , 10/16/20 17:22:02  
**Batch Date** : 10/15/20 11:39:01

Reagent	Dilution	Consums. ID
092320.10	10	287035261 76262-590

Pesticide screen is performed using LC-MS which can screen down to below single digit ppb concentrations for regulated Pesticides. Currently we analyze for 67 Pesticides. (Method: SOP.T.30.060 Sample Preparation for Pesticides Analysis via LCMSMS and SOP.T.40.065 Procedure for Pesticide Quantification Using LCMS). \* Volatile Pesticide screening is performed using GC-MS which can screen down to below single digit ppb concentrations for regulated Pesticides. Analytes marked with an asterisk were tested using GC-MS.



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**Sample : GA01013013-002**
**Harvest/LOT ID: 20279002**
**Batch# :** 20279002

**Sampled :** 10/07/20


**Ordered :** 10/07/20

**Sample Size Received :** 60 ml

**Completed :** 10/20/20 **Expires:** 10/20/21

**Sample Method :** SOP Client Method

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	<b>Residual Solvents</b>	<b>TESTED</b>
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Solvent	LOD	Units	Action Level (PPM)	Pass/Fail	Result
PROPANE	500	ppm	5000	PASS	ND
BUTANES (N-BUTANE)	500	ppm	5000	PASS	ND
ETHYLENE OXIDE	0.5	ppm	5	PASS	ND
METHANOL	25	ppm	250	FAIL	27648.449
ETHANOL	500	ppm		PASS	3523.290
PENTANES (N-PENTANE)	75	ppm	750	PASS	ND
ETHYL ETHER	50	ppm	500	PASS	ND
ACETONE	75	ppm	750	PASS	ND
2-PROPANOL	50	ppm	500	PASS	ND
ACETONITRILE	6	ppm	60	PASS	ND
DICHLOROMETHANE	12.5	ppm	125	PASS	ND
N-HEXANE	25	ppm	250	PASS	ND
ETHYL ACETATE	40	ppm	400	PASS	ND
BENZENE	0.1	ppm	1	PASS	ND
HEPTANE	500	ppm	5000	PASS	ND
TOLUENE	15	ppm	150	PASS	ND
TOTAL XYLENES	15	ppm	150	PASS	ND
CHLOROFORM	0.2	ppm	2	PASS	ND
1,2-DICHLOROETHANE	0.2	ppm	2	PASS	ND
1,1-DICHLOROETHENE	0.8	ppm	8	FAIL	10.025
TRICHLOROETHYLENE	2.5	ppm	25	PASS	ND

	<b>Residual Solvents</b>	<b>TESTED</b>
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<b>Analyzed by</b> 508	<b>Weight</b> .0209g	<b>Extraction date</b> 10/14/20 04:10:29	<b>Extracted By</b> 508
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**Analysis Method -SOP.T.40.032**
**Analytical Batch -GA017337SOL**
**Reviewed On - 10/20/20 14:24:52**
**Instrument Used : GA-GCMS-001 Headspace Solvent**
**Running On : 10/14/20 16:40:10**
**Batch Date : 10/14/20 10:25:55**

Reagent	Dilution	Consums. ID
		24154107 ach-20-1720

Residual solvents screening is performed using GC-MS which can detect below single digit ppm concentrations. Currently we analyze for 21 Residual solvents.(Method: SOP.T.40.032 Residual Solvents Analysis via GC-MS).





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Harvest/LOT ID: 20279002

Batch# : 20279002

Sampled : 10/07/20

Ordered : 10/07/20

Sample Size Received : 60 ml

Completed : 10/20/20 Expires: 10/20/21

Sample Method : SOP Client Method

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	<b>Microbials</b>	<b>PASSED</b>
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	<b>Mycotoxins</b>	<b>PASSED</b>
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Analyte	LOD	Result	Analyte	LOD	Units	Result	Action Level (PPM)
ASPERGILLUS_FLAVUS		not present in 1 gram.	AFLATOXIN G2	0.002	ppm	ND	0.02
ASPERGILLUS_FUMIGATUS		not present in 1 gram.	AFLATOXIN G1	0.002	ppm	ND	0.02
ASPERGILLUS_NIGER		not present in 1 gram.	AFLATOXIN B2	0.002	ppm	ND	0.02
ASPERGILLUS_TERREUS		not present in 1 gram.	AFLATOXIN B1	0.002	ppm	ND	0.02
ESCHERICHIA_COLI_SHIGELLA_SPP		not present in 1 gram.	OCHRATOXIN A+	0.002	ppm	ND	0.02
SALMONELLA_SPECIFIC_GENE		not present in 1 gram.					

Analysis Method -SOP.T.40.043 / SOP.T.40.044

Analytical Batch -DA017430MIC Batch Date : 10/15/20

Instrument Used : PathogenDX PCR\_Array Scanner DA-111,PathogenDX PCR\_DA-013

Running On : 10/16/20

Analyzed by	Weight	Extraction date	Extracted By
513	0.9783g	10/16/20	1794

Reagent	Consums. ID	Consums. ID	Consums. ID	Consums. ID
071020.25	181019-274	20334	D006	2808007
101619.02	11989-024CC-024	012020	2807008	2811018
	181207119C	850C6-850H	2809005	A09
	918C4-918J	2802021	2810015B	
	914C4-914AK	2803030	031	
	50AX30819	D006	2804028	

Microbiological testing for Fungal and Bacterial Identification via Polymerase Chain Reaction (PCR) method consisting of sample DNA amplified via tandem Polymerase Chain Reaction (PCR) as a crude lysate which avoids purification. (Method SOP.T.40.043) If a pathogenic Escherichia Coli, Salmonella, Aspergillus fumigatus, Aspergillus flavus, Aspergillus niger, or Aspergillus terreus is detected in 1g of a sample, the sample fails the microbiological-impurity testing.

Analysis Method -SOP.T.30.065, SOP.T.40.065

Analytical Batch -DA017409MYC | Reviewed On - 10/19/20 13:49:49

Instrument Used : DA-LCMS-002\_DER (MYC)

Running On : 10/16/20 17:59:56

Batch Date : 10/15/20 11:48:57

Analyzed by	Weight	Extraction date	Extracted By
585	1g	10/16/20 03:10:09	585

Aflatoxins B1, B2, G1, G2, and Ochratoxins A testing using LC-MS. (Method: SOP.T.30.065 for Sample Preparation and SOP.T40.065 Procedure for Mycotoxins Quantification Using LCMS. LOQ 1.0 ppb). Aflatoxin B1, B2, G1, and G2 must individually be <20ug/Kg. Ochratoxins must be <20ug/Kg.

	<b>Heavy Metals</b>	<b>PASSED</b>
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Reagent	Reagent	Dilution	Consums. ID
100720.R23	100520.R05	100	89401-566
100820.R08	101420.R02		
101220.R02	082520.05		
100520.R01	090320.01		
101420.R20	030420.06		
101220.R06	100120.37		

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.02	PPM	ND	1.5
CADMIUM	0.02	PPM	ND	0.5
MERCURY	0.02	PPM	ND	3
LEAD	0.05	PPM	ND	0.5

Analyzed by	Weight	Extraction date	Extracted By
1022	0.2622g	10/15/20 03:10:29	1783

Analysis Method -SOP.T.40.050, SOP.T.30.052

Analytical Batch -DA017407HEA | Reviewed On - 10/16/20 11:39:16

Instrument Used : DA-ICPMS-002

Running On :

Batch Date : 10/15/20 11:32:17

Heavy Metals screening is performed using ICP-MS (Inductively Coupled Plasma - Mass Spectrometer) which can screen down to below single digit ppb concentrations for regulated heavy metals using Method SOP.T.30.052 Sample Preparation for Heavy Metals Analysis via ICP-MS and SOP.T.40.050 Heavy Metals Analysis via ICP-MS.