



Certificate of Analysis

Jul 07, 2020 | Empire Standard LLC

29 Industrial Park Dr.
Binghamton, NY, 13904, United States



Sample: DA00629016-001

Harvest/Lot ID: 20171001

Seed to Sale #N/A

Batch Date : N/A

Batch#: 20171001

Sample Size Received: 30 ml

Retail Product Size: 30

Ordered : 06/22/20

Sampled : 06/22/20

Completed: 07/07/20 Expires: 07/07/21

Sampling Method: SOP Client Method

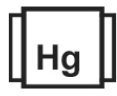
PASSED

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PRODUCT IMAGE SAFETY RESULTS



Pesticides
PASSED



Heavy Metals
PASSED



Microbials
PASSED



Mycotoxins
PASSED



Residuals
Solvents
PASSED



Filtration
PASSED



Water Activity
NOT TESTED



Moisture
NOT TESTED



Terpenes
NOT TESTED

MISC.

CANNABINOID RESULTS



Total THC

0.023%

THC/Container : 6.624 mg



Total CBD

0.956%

CBD/Container : 275.328 mg



Total Cannabinoids

1.085%

Total Cannabinoids/Container
: 312.480 mg

CBC	CBGA	CBG	THCV	D8-THC	CBDV	CBN	CBDA	CBD	D9-THC	THCA
0.096%	ND	0.010%	ND	ND	ND	ND	ND	0.956%	0.023%	ND
0.960 mg/g	ND	0.100 mg/g	ND	ND	ND	ND	ND	9.560 mg/g	0.230 mg/g	ND
LOD 0.001 %	0.001 %	0.001 %	0.001 %	0.001 %	0.001 %	0.001 %	0.001 %	0.0001 %	0.0001 %	0.001 %

	Filtration	PASSED
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Analyzed By	Weight	Extraction date	LOD(ppm)	Extracted By
457	1g	NA		NA
Analysis Method -SOP.T.40.013		Batch Date : 06/29/20 14:12:41		
Analytical Batch -DA013525FIL		Reviewed On - 06/29/20 14:14:40		
Instrument Used : Filth/Foreign		Material Microscope		

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 used for inspection.

Cannabinoid Profile Test

Analyzed by	Weight	Extraction date :	Extracted By :
450	3.0236g	06/29/20 12:06:33	965
Analysis Method -SOP.T.40.020, SOP.T.30.050		Reviewed On - 07/01/20 12:29:06	
Analytical Batch -DA013514POT		Batch Date : 06/29/20 09:39:19	
Instrument Used : DA-LC-003			

Reagent	Dilution	Consums. ID
032320.30	40	280678841
042120.29		918C4-918J
062920.R25		914C4-914AK
062920.R24		929C6-929H

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).



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Batch# : 20171001

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Ordered : 06/22/20

Sample Size Received : 30 ml

Completed : 07/07/20 **Expires:** 07/07/21

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	PRALLETHRIN	0.01	ppm	0.4	ND
ACEPHATE	0.01	ppm	3	ND	PROPICONAZOLE	0.01	ppm	1	ND
ACEQUINOCYL	0.01	ppm	2	ND	PROPOXUR	0.01	ppm	0.1	ND
ACETAMIPRID	0.01	ppm	3	ND	PYRETHRINS	0.05	ppm	1	ND
ALDICARB	0.01	ppm	0.1	ND	PYRIDABEN	0.02	ppm	3	ND
AZOXYSTROBIN	0.01	ppm	3	ND	SPINETORAM	0.02	PPM	3	ND
BIFENAZATE	0.01	ppm	3	ND	SPIROMESIFEN	0.01	ppm	3	ND
BIFENTHRIN	0.01	ppm	0.5	ND	SPIROTETRAMAT	0.01	ppm	3	ND
BOSCALID	0.01	PPM	3	ND	SPIROXAMINE	0.01	ppm	0.1	ND
CARBARYL	0.05	ppm	0.5	ND	TEBUCONAZOLE	0.01	ppm	1	ND
CARBOFURAN	0.01	ppm	0.1	ND	THIACLOPRID	0.01	ppm	0.1	ND
CHLORANTRANILIPROLE	0.1	ppm	3	ND	THIAMETHOXAM	0.05	ppm	1	ND
CHLORMEQUAT CHLORIDE	0.05	ppm	3	ND	TOTAL CONTAMINANT LOAD (PESTICIDES)	0	PPM	20	ND
CHLORPYRIFOS	0.01	ppm	0.1	ND	TOTAL PERMETHRIN	0.01	ppm	1	ND
CLOFENTEZINE	0.02	ppm	0.5	ND	TOTAL SPINOSAD	0.01	ppm	3	ND
COUMAPHOS	0.01	ppm	0.1	ND	TRIFLOXYSTROBIN	0.01	ppm	3	ND
DAMINOZIDE	0.01	ppm	0.1	ND	CHLORDANE *	0.01	PPM	0.1	ND
DIAZANON	0.01	ppm	0.2	ND	PENTACHLORONITROBENZENE (PCNB) *	0.01	PPM	0.2	ND
DICHLORVOS	0.01	ppm	0.1	ND	PARATHION-METHYL *	0.01	PPM	0.1	ND
DIMETHOATE	0.01	ppm	0.1	ND	CAPTAN *	0.025	PPM	3	ND
DIMETHOMORPH	0.02	ppm	3	ND	CHLORFENAPYR *	0.01	PPM	0.1	ND
ETHOPROPHOS	0.01	ppm	0.1	ND	CYFLUTHRIN *	0.01	PPM	1	ND
ETOFENPROX	0.01	ppm	0.1	ND	CYPERMETHRIN *	0.01	PPM	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					
METHYL PARATHION	0.005	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					



Pesticides

PASSED
Analyzed by
 585 , 1665

Weight
 1.0332g

Extraction date
 06/29/20 12:06:13

Extracted By
 1082 , 1665

Analysis Method - SOP.T.30.065, SOP.T.40.065 ,
 SOP.T.30.065, SOP.T.40.070

Analytical Batch - DA013513PES , DA013663VOL
Instrument Used : DA-LCMS-001_DER (PES) , DA-
 GCMS-001

Reviewed On- 06/29/20 14:14:40

Batch Date : 06/29/20 09:36:34

Reagent

 050820.01
 062420.R01
 062320.R20
 041720.03

Dilution

10

Consums. ID

 280678841
 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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Completed : 07/07/20 **Expires:** 07/07/21

Sample Method : SOP Client Method

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Residual Solvents

PASSED

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



Residual Solvents

PASSED

Analyzed by 850	Weight 0.0300g	Extraction date 06/30/20 03:06:59	Extracted By 850
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Analysis Method -SOP.T.40.032
Analytical Batch -DA013564SOL
Instrument Used : DA-GCMS-002
Batch Date : 06/30/20 14:53:38
Reviewed On - 07/03/20 16:01:25

Reagent	Dilution	Consums. ID
	1	H2017.077 00279984 161291

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.30.032 Residual Solvents Analysis via GC-MS).



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Completed : 07/07/20 **Expires:** 07/07/21

Sample Method : SOP Client Method

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	Mycotoxins	PASSED
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Analyte	LOD	Units	Result	Action Level (PPM)
AFLATOXIN G2	0.002	ppm	ND	0.02
AFLATOXIN G1	0.002	ppm	ND	0.02
AFLATOXIN B2	0.002	ppm	ND	0.02
AFLATOXIN B1	0.002	ppm	ND	0.02
OCHRATOXIN A+	0.002	ppm	ND	0.02

Analysis Method -SOP.T.30.065, SOP.T.40.065
Analytical Batch -DA013515MYC | Reviewed On - 06/30/20 11:50:59
Instrument Used : DA-LCMS-001_DER (MYC)
Batch Date : 06/29/20 09:41:47

Analyzed by	Weight	Extraction date	Extracted By
585	1g	06/29/20 04:06:12	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 <20µg/Kg.

Reagent	Reagent	Consums. ID
052720.57	061920.19	918C4-918J
052720.262	061920.21	914C4-914AK
052720.72	052720.233	929C6-929H
052720.188		50AX30819
052720.208		19323
052720.148		25219065
052720.149		190827060
052720.166		
052720.167		
052720.102		
052720.124		
052720.140		
052720.20		
052720.21		
061920.38		

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.

	Microbials	PASSED
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Analyte	Result
ASPERGILLUS_FLAVUS	not present in 1 gram.
ASPERGILLUS_FUMIGATUS	not present in 1 gram.
ASPERGILLUS_NIGER	not present in 1 gram.
ASPERGILLUS_TERREUS	not present in 1 gram.
ESCHERICHIA_COLI_SHIGELLA_SPP	not present in 1 gram.
SALMONELLA_SPECIFIC_GENE	not present in 1 gram.

Analysis Method -SOP.T.40.043 / SOP.T.40.045
Analytical Batch -DA013508MIC | Reviewed On - 07/02/20 18:11:11
Instrument Used : PathogenDX PCR_Array Scanner DA-111
Batch Date : 06/29/20 08:41:47

Analyzed by	Weight	Extraction date	Extracted By
513	1.0336g	06/29/20 12:06:17	1082

	Heavy Metals	PASSED
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Reagent	Reagent	Dilution	Consums. ID
062920.R01	062920.R02	100	106557-04-091619
030920.02	062320.R02		
062920.R03	062320.R03		
061220.R02	062520.R02		
062920.R04			
062320.R04			

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

Analyzed by	Weight	Extraction date	Extracted By
53	0.2536g	06/29/20 02:06:36	1022

Analysis Method -SOP.T.40.050, SOP.T.30.052
Analytical Batch -DA013507HEA | Reviewed On - 06/30/20 09:01:22
Instrument Used : DA-ICPMS-002
Batch Date : 06/29/20 08:39:17

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.