



Certificate of Analysis

Sample: MO01222008-001
Harvest/Lot ID: TULIP ISOLATE 121820
Seed to Sale #N/A
Batch Date :N/A
Batch#: 121820
Sample Size Received: 17.1 ml
Retail Product Size: 1
Ordered : 12/21/20
Sampled : 12/21/20
Completed: 12/30/20 Expires: 12/30/21
Sampling Method: SOP Client Method

Dec 30, 2020 | Aerosource H

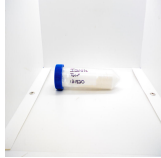
101 Liberty Drive
Kevill, KY, 42053, US



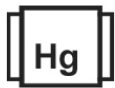
PASSED

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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
0.000%



Total CBD
99.478%



Total Cannabinoids
99.982%

D9-THC	THCA	CBD	CBDA	D8-THC	THCV	CBN	CBDV	CBC	CBG	CBGA
ND	ND	99.478%	ND	ND	ND	ND	0.504%	ND	ND	ND
ND	ND	994.780 mg/g	ND	ND	ND	ND	5.040 mg/g	ND	ND	ND
LOD 0.0001%	0.001%	0.0001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%



Filtration

PASSED

Analyzed By: 564
Weight: NA
Extraction date: NA
Extracted By: NA
Analyte: Filth and Foreign Material
Analysis Method - SOP.T.40.013
Analytical Batch -NA
Instrument Used :
LOD: 0.3
Batch Date :
Reviewed On - 12/28/20 10:42:10
Result: ND

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: 19
Weight: 0.1007g
Extraction date : NA
Extracted By : NA
Analysis Method - SOP.T.40.020, SOP.T.30.050
Reviewed On - 12/30/20 10:21:35
Batch Date : 12/23/20 14:06:07
Analytical Batch - MO001582POT
Instrument Used : HPLC Potency Analyzer

Reagent Dilution Consums. ID

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). Measurement of Uncertainty: 2.7%

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David Greene
Lab Director

State License # 19-05-02P
ISO Accreditation # .

Signature
Signature

12/30/2020

Signed On



Certificate of Analysis

PASSED

Aerosource H

101 Liberty Drive
Keval, KY, 42053, US
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Email: cbaldwin@aerosourceh.com

Sample : MO01222008-001
Harvest/LOT ID: TULIP ISOLATE 121820
Batch# : 121820 **Sample Size Received : 17.1 ml**
Sampled : 12/21/20 **Completed : 12/30/20 Expires: 12/30/21**
Ordered : 12/21/20 **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	0.020	ppm	0.5	ND	PRALLETHRIN	0.050	ppm	0.2	ND
ACEPHATE	0.010	ppm	0.5	ND	PROPICONAZOLE	0.010	ppm	0.4	ND
ACEQUINOCYL	0.02	ppm	2	ND	PROPOXUR	0.010	ppm	0.2	ND
ACETAMIPRID	0.010	ppm	0.2	ND	PYRETHRIN I	0.010	ppm	1	ND
ALDICARB	0.020	ppm	0.4	ND	PYRIDABEN	0.005	ppm	0.2	ND
AZOXYSTROBIN	0.010	ppm	0.2	ND	SPINETORAM	0.005	ppm	0.5	ND
BIFENAZATE	0.010	ppm	0.2	ND	SPINOSAD (SPINOSYN A)	0.010	ppm	0.2	ND
BIFENTHRIN	0.010	ppm	0.2	ND	SPINOSAD (SPINOSYN D)	0.010	ppm	0.2	ND
BOSCALID	0.005	ppm	0.4	ND	SPIROMESIFEN	0.010	ppm	0.2	ND
CARBARYL	0.010	ppm	0.2	ND	SPIROTETRAMAT	0.020	ppm	0.2	ND
CARBOFURAN	0.010	ppm	0.2	ND	SPIROXAMINE	0.010	ppm	0.4	ND
CHLORANTRANILIPROLE	0.010	ppm	0.2	ND	TEBUCONAZOLE	0.010	ppm	0.4	ND
CHLORPYRIFOS	0.010	ppm	0.2	ND	THIACLOPRID	0.010	ppm	0.2	ND
CLOFENTEZINE	0.010	ppm	0.2	ND	THIAMETHOXAM	0.010	ppm	0.5	ND
COUMAPHOS	0.005	ppm	0.2	ND	TRIFLOXYSTROBIN	0.010	ppm	0.2	ND
CYPERMETHRIN	0.010	ppm	1	ND					
DAMINOZIDE	0.010	ppm	1	ND					
DIAZANON	0.010	ppm	0.2	ND					
DICHLORVOS	0.050	ppm	0.1	ND					
DIMETHOATE	0.010	ppm	0.2	ND					
DIMETHOMORPH	0.005	ppm	0.1	ND					
ETHOPROPHOS	0.010	ppm	0.2	ND					
ETOFENPROX	0.010	ppm	0.4	ND					
ETOXAZOLE	0.010	ppm	0.2	ND					
FENHEXAMID	0.005	ppm	0.1	ND					
FENOXYCARB	0.010	ppm	0.2	ND					
FENPYROXIMATE	0.010	ppm	0.4	ND					
FIPRONIL	0.020	ppm	0.4	ND					
FLONICAMID	0.010	ppm	1	ND					
FLUDIOXONIL	0.010	ppm	0.4	ND					
HEXYTHIAZOX	0.010	ppm	1	ND					
IMAZALIL	0.010	ppm	0.2	ND					
IMIDACLOPRID	0.010	ppm	0.4	ND					
KRESOXIM-METHYL	0.010	ppm	0.4	ND					
MALATHION	0.010	ppm	0.2	ND					
METALAXYL	0.010	ppm	0.2	0.129					
METHIOCARB	0.010	ppm	0.2	ND					
METHOMYL	0.010	ppm	0.6	ND					
MEVINPHOS	0.010	ppm	0.1	ND					
MYCLOBUTANIL	0.010	ppm	0.2	ND					
NALED	0.010	ppm	0.5	ND					
OXAMYL	0.010	ppm	1	ND					
PACLOBUTRAZOL	0.010	ppm	0.4	ND					
PERMETHRINS	0.050	ppm	1	ND					
PHOSMET	0.010	ppm	0.2	ND					
PIPERONYL BUTOXIDE	0.010	ppm	3	ND					

Pesticides
PASSED

Analyzed by 564	Weight 1g	Extraction date NA	Extracted By NA
Analysis Method - SOP.T.30.060, SOP.T.40.060 ,		Reviewed On- 12/28/20 10:42:10	
Analytical Batch - MO001587PES			
Instrument Used : LCMSMS 8060 P			
Running On :			
Batch Date : 12/28/20 10:34:25			

Reagent	Dilution	Consums. ID
102919-22		03-339-23D 00280227 931CC

Pesticide screen is performed using LC-MS which can screen down to below single digit ppb concentrations for regulated Pesticides. Currently we analyze for 57 Pesticides. (Method: SOP.T.30.060 Sample Preparation for Pesticides Analysis via LCMSMS and SOP.T40.060 Procedure for Pesticide Quantification Using LCMS). *

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David Greene
Lab Director
State License # 19-05-02P
ISO Accreditation # .

DLG
Signature

12/30/2020
Signed On



Certificate of Analysis

PASSED

Aerosource H

101 Liberty Drive
Kevil, KY, 42053, US
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Email: cbaldwin@aerosourceh.com

Sample : MO01222008-001
Harvest/LOT ID: TULIP ISOLATE 121820
Batch# : 121820 Sample Size Received : 17.1 ml
Sampled : 12/21/20 Completed : 12/30/20 Expires: 12/30/21
Ordered : 12/21/20 Sample Method : SOP Client Method

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Residual Solvents

PASSED

Residual Solvents

PASSED

Solvent	LOD	Units	Action Level (PPM)	Pass/Fail	Result
TRICHLOROETHENE	3	ppm	80	PASS	ND
CHLOROFORM	0.24	ppm	60	PASS	ND
1,2-DICHLOROETHENE	0.24	ppm	1870	PASS	ND
1,1-DICHLOROETHENE	2	ppm	8	PASS	ND
PENTANES	90	ppm	2500	PASS	262.000
BUTANES (N-BUTANE)	50	ppm	5000	PASS	ND
ACETONITRILE	7.2	ppm	410	PASS	ND
ACETONE	90	ppm	5000	PASS	ND
2-PROPANOL	60	ppm	5000	PASS	ND
HEXANES	6	ppm	290	PASS	ND
XYLENES	18	ppm	2170	PASS	ND
TOLUENE	18	ppm	1068	PASS	ND
PROPANE	80	ppm	5000	PASS	ND
METHANOL	30	ppm	3000	PASS	ND
HEPTANE	60	ppm	4000	PASS	ND
XYLENES-P (1,4-DIMETHYLBENZENE)	18	ppm	2170	PASS	ND
ETHYLENE OXIDE	0.6	ppm	50	PASS	ND
XYLENES-M (1,3-DIMETHYLBENZENE)	18	ppm	2170	PASS	ND
ETHYL ETHER	60	ppm	5000	PASS	ND
XYLENES-O (1,2-DIMETHYLBENZENE)	18	ppm	2170	PASS	ND
ETHYL ACETATE	48	ppm	5000	PASS	ND
ETHANOL	120	ppm	5000	PASS	ND
DICHLOROMETHANE	15	ppm	600	PASS	ND

Analyzed by 18 **Weight** 0.023g **Extraction date** 12/23/20 09:12:27 **Extracted By** 18
Analysis Method -SOP.T.40.032
Analytical Batch -MO001577SOL **Reviewed On - 12/23/20 10:22:53**
Instrument Used : GCMS2010
Running On :
Batch Date : 12/23/20 09:20:00

Reagent	Dilution	Consums. ID
Residual solvents screening is performed using GC-MS which can detect below single digit ppm concentrations. Currently we analyze for 33 Residual solvents. (Method: SOP.T.30.042 Residual Solvents Analysis via GC-MS).		

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David Greene
Lab Director

State License # 19-05-02P
ISO Accreditation # .

Signature
Signature

12/30/2020

Signed On



Certificate of Analysis

PASSED

Aerosource H

101 Liberty Drive
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Sample : MO01222008-001
Harvest/LOT ID: TULIP ISOLATE 121820
Batch# : 121820
Sample Size Received : 17.1 ml
Sampled : 12/21/20
Completed : 12/30/20 **Expires:** 12/30/21
Ordered : 12/21/20
Sample Method : SOP Client Method

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Microbials
PASSED

Mycotoxins
PASSED

Analyte	LOD	Result
ASPERGILLUS_TERREUS_1J2		not present in 1 gram.
ASPERGILLUS_NIGER		not present in 1 gram.
ASPERGILLUS_FUMIGATUS		not present in 1 gram.
ASPERGILLUS_FLAVUS		not present in 1 gram.
SALMONELLA_SPECIFIC_GENE		not present in 1 gram.
ESCHERICHIA_COLI_SHIGELLA_SPP		not present in 1 gram.

Analysis Method -SOP.T.40.043
Analytical Batch -NA Batch Date :
Instrument Used :
Running On :

Analyzed by	Weight	Extraction date	Extracted By
NA	NA	NA	NA

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.

Analyte	LOD	Units	Result	Action Level (PPM)
AFLATOXIN G2	0.001	ppm	ND	0.02
AFLATOXIN G1	0.001	ppm	ND	0.02
AFLATOXIN B2	0.001	ppm	ND	0.02
AFLATOXIN B1	0.001	ppm	ND	0.02
OCHRATOXIN A+	0.001	ppm	ND	0.02

Analysis Method -SOP.T.30.060, SOP.T.40.060
Analytical Batch - | Reviewed On - 12/28/20 10:42:05
Instrument Used :
Running On :
Batch Date :

Analyzed by	Weight	Extraction date	Extracted By
NA	NA	NA	NA

Aflatoxins B1, B2, G1, G2, and Ochratoxins A testing using LC-MS. (Method: SOP.T.30.060 for Sample Preparation and SOP.T40.060 Procedure for Mycotoxins Quantification Using LCMS. LOQ 1.0 ppb). Total Aflatoxins (Aflatoxin B1, B2, G1, G2) must be <20µg/Kg. Ochratoxins must be <20µg/Kg.

Heavy Metals
PASSED

Reagent

110119.52
110119.44
112519.01
110119.36

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.02	ppm	ND	10
CADMIUM	0.02	ppm	ND	4.1
LEAD	0.02	ppm	ND	10
MERCURY	0.02	ppm	ND	2

Analyzed by	Weight	Extraction date	Extracted By
18	0.494g	12/23/20 09:12:15	18

Analysis Method -SOP.T.40.050, SOP.T.30.052
Analytical Batch -MO001578HEA | Reviewed On - 12/23/20 10:24:37
Instrument Used : ICP-MS 2030
Running On :
Batch Date : 12/23/20 09:25:29

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. *Action Limits based on Colorado Regulations.

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Signature

12/30/2020
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