

HHC Vape Cartridge - Northern Lights - 1 ml

Sample ID: SA-240903-47863
 Batch: 03SEP2024-HHCNL
 Type: Finished Product - Inhalable
 Matrix: Concentrate - Distillate
 Unit Mass (g):

Received: 09/05/2024
 Completed: 09/18/2024

Client
 3Chi
 275 Medical Dr #857
 Carmel, IN 46082
 USA
 Lic. #: 18_0235



Summary

Test	Date Tested	Status
Cannabinoids	09/18/2024	Tested
Heavy Metals	09/11/2024	Tested
Microbials	09/12/2024	Tested
Mycotoxins	09/11/2024	Tested
Pesticides	09/11/2024	Tested
Residual Solvents	09/13/2024	Tested
Terpenes	09/12/2024	Tested

ND	54.6 %	94.7 %	Not Tested	Not Tested	Yes
Total Δ9-THC	(6aR,9R,10aR)-HHC	Total Cannabinoids	Moisture Content	Foreign Matter	Internal Standard Normalization

Cannabinoids by HPLC-PDA and GC-MS/MS

Analyte	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)
CBC	0.0095	0.0284	ND	ND
CBCA	0.0181	0.0543	ND	ND
CBCV	0.006	0.018	ND	ND
CBD	0.0081	0.0242	ND	ND
CBDA	0.0043	0.013	ND	ND
CBDV	0.0061	0.0182	ND	ND
CBDVA	0.0021	0.0063	ND	ND
CBG	0.0057	0.0172	ND	ND
CBGA	0.0049	0.0147	ND	ND
CBL	0.0112	0.0335	ND	ND
CBLA	0.0124	0.0371	ND	ND
CBN	0.0056	0.0169	0.265	2.65
CBNA	0.006	0.0181	ND	ND
CBT	0.018	0.054	ND	ND
Δ8-THC	0.0104	0.0312	ND	ND
Δ9-THC	0.0076	0.0227	ND	ND
Δ9-THCA	0.0084	0.0251	ND	ND
Δ9-THCV	0.0069	0.0206	ND	ND
Δ9-THCVA	0.0062	0.0186	ND	ND
(6aR,9R,10aR)-HHC	0.0067	0.02	54.6	546
(6aR,9S,10aR)-HHC	0.0067	0.02	39.8	398
Total Δ9-THC			ND	ND
Total			94.7	947

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; RL = Reporting Limit; Δ = Delta; Total Δ9-THC = Δ9-THCA * 0.877 + Δ9-THC; Total CBD = CBDA * 0.877 + CBD;



Generated By: Ryan Bellone
 CCO
 Date: 09/18/2024



Tested By: Scott Caudill
 Laboratory Manager
 Date: 09/18/2024



ISO/IEC 17025:2017 Accredited
 Accreditation #108651



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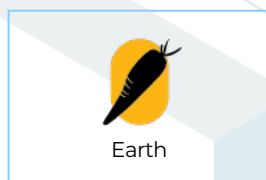
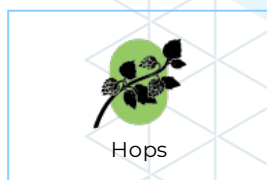
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Terpenes by GC-MS

Analyte	LOD (%)	LOQ (%)	Result (%)	Analyte	LOD (%)	LOQ (%)	Result (%)
α-Bisabolol	0.002	0.01	0.0105	Limonene	0.002	0.01	0.104
(+)-Borneol	0.002	0.01	ND	Linalool	0.002	0.01	0.0518
Camphene	0.002	0.01	<LOQ	β-myrcene	0.002	0.01	0.0756
Camphor	0.004	0.02	ND	Nerol	0.002	0.01	ND
3-Carene	0.002	0.01	<LOQ	cis-Nerolidol	0.002	0.01	ND
β-Caryophyllene	0.002	0.01	0.865	trans-Nerolidol	0.002	0.01	ND
Caryophyllene Oxide	0.002	0.01	0.0305	Ocimene	0.002	0.01	0.0464
α-Cedrene	0.002	0.01	ND	α-Phellandrene	0.002	0.01	0.0112
Cedrol	0.002	0.01	ND	α-Pinene	0.002	0.01	0.0412
Eucalyptol	0.002	0.01	<LOQ	β-Pinene	0.002	0.01	0.0226
Fenchone	0.004	0.02	ND	Pulegone	0.002	0.01	ND
Fenchyl Alcohol	0.002	0.01	0.0116	Sabinene	0.002	0.01	ND
Geraniol	0.002	0.01	ND	Sabinene Hydrate	0.002	0.01	ND
Geranyl Acetate	0.002	0.01	ND	α-Terpinene	0.002	0.01	<LOQ
Guaiol	0.002	0.01	ND	γ-Terpinene	0.002	0.01	<LOQ
Hexahydrothymol	0.002	0.01	ND	α-Terpineol	0.001	0.005	0.00895
α-Humulene	0.002	0.01	0.368	γ-Terpineol	0.001	0.005	ND
Isoborneol	0.002	0.01	ND	Terpinolene	0.002	0.01	0.181
Isopulegol	0.002	0.01	ND	Valencene	0.002	0.01	ND
				Total Terpenes (%)			1.85

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; P = Pass; F = Fail; RL = Reporting Limit; Values over action limits may be estimates




Generated By: Ryan Bellone
 CCO

Date: 09/18/2024



Tested By: Kelsey Rogers
 Scientist

Date: 09/12/2024





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KDA Lic.# P_0058

Certificate of Analysis

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Heavy Metals by ICP-MS

Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)
Arsenic	0.002	0.02	ND
Cadmium	0.001	0.02	ND
Lead	0.002	0.02	ND
Mercury	0.012	0.05	ND

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Generated By: Ryan Bellone
CCO

Date: 09/18/2024

Tested By: Chris Farman
Scientist

Date: 09/11/2024



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Pesticides by LC-MS/MS

Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)
Abamectin	30	100	ND	Hexythiazox	30	100	ND
Acephate	30	100	ND	Imazalil	30	100	ND
Acequinocyl	30	100	ND	Imidacloprid	30	100	ND
Acetamiprid	30	100	ND	Kresoxim methyl	30	100	ND
Azoxystrobin	30	100	ND	Malathion	30	100	ND
Bifenazate	30	100	ND	Metaxyl	30	100	ND
Bifenthrin	30	100	ND	Methiocarb	30	100	ND
Boscalid	30	100	ND	Methomyl	30	100	ND
Carbaryl	30	100	ND	Mevinphos	30	100	ND
Carbofuran	30	100	ND	Myclobutanil	30	100	ND
Chloranthraniliprole	30	100	ND	Naled	30	100	ND
Chlorfenapyr	30	100	ND	Oxamyl	30	100	ND
Chlorpyrifos	30	100	ND	Paclobutrazol	30	100	ND
Clofentezine	30	100	ND	Permethrin	30	100	ND
Coumaphos	30	100	ND	Phosmet	30	100	ND
Cypermethrin	30	100	ND	Piperonyl Butoxide	30	100	ND
Diazinon	30	100	ND	Prallethrin	30	100	ND
Dichlorvos	30	100	ND	Propiconazole	30	100	ND
Dimethoate	30	100	ND	Propoxur	30	100	ND
Dimethomorph	30	100	ND	Pyrethrins	30	100	ND
Ethoprophos	30	100	ND	Pyridaben	30	100	ND
Etofenprox	30	100	ND	Spinetoram	30	100	ND
Etoxazole	30	100	ND	Spinosad	30	100	ND
Fenhexamid	30	100	ND	Spiromesifen	30	100	ND
Fenoxycarb	30	100	ND	Spirotetramat	30	100	ND
Fenpyroximate	30	100	ND	Spiroxamine	30	100	ND
Fipronil	30	100	ND	Tebuconazole	30	100	ND
Flonicamid	30	100	ND	Thiacloprid	30	100	ND
Fludioxonil	30	100	ND	Thiamethoxam	30	100	ND
				Trifloxystrobin	30	100	ND

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Generated By: Ryan Bellone
 CCO

Date: 09/18/2024



Tested By: Anthony Mattingly
 Scientist

Date: 09/11/2024



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Mycotoxins by LC-MS/MS

Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)
B1	1	5	ND
B2	1	5	ND
G1	1	5	ND
G2	1	5	ND
Ochratoxin A	1	5	ND

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Tested By: Anthony Mattingly
 Scientist
 Date: 09/11/2024



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Microbials by PCR and Plating

Analyte	LOD (CFU/g)	Result (CFU/g)	Result (Qualitative)
Total aerobic count	10	ND	
Total coliforms	10	ND	
Generic E. coli	10	ND	
Salmonella spp.	1		Not Detected per 1 gram
Shiga-toxin producing E. coli (STEC)	1		Not Detected per 1 gram

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Tested By: Jade Pinkston
 Microbiology Technician
 Date: 09/12/2024



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Residual Solvents by HS-GC-MS

Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)	Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)
Acetone	167	500	ND	Ethylene Oxide	0.5	1	ND
Acetonitrile	14	41	ND	Heptane	167	500	ND
Benzene	0.5	1	ND	n-Hexane	10	29	ND
Butane	167	500	ND	Isobutane	167	500	ND
1-Butanol	167	500	ND	Isopropyl Acetate	167	500	ND
2-Butanol	167	500	ND	Isopropyl Alcohol	167	500	ND
2-Butanone	167	500	ND	Isopropylbenzene	167	500	ND
Chloroform	2	6	ND	Methanol	100	300	ND
Cyclohexane	129	388	ND	2-Methylbutane	10	29	ND
1,2-Dichloroethane	0.5	1	ND	Methylene Chloride	20	60	ND
1,2-Dimethoxyethane	4	10	ND	2-Methylpentane	10	29	ND
Dimethyl Sulfoxide	167	500	ND	3-Methylpentane	10	29	ND
N,N-Dimethylacetamide	37	109	ND	n-Pentane	167	500	ND
2,2-Dimethylbutane	10	29	ND	1-Pentanol	167	500	ND
2,3-Dimethylbutane	10	29	ND	n-Propane	167	500	ND
N,N-Dimethylformamide	30	88	ND	1-Propanol	167	500	ND
2,2-Dimethylpropane	167	500	ND	Pyridine	7	20	ND
1,4-Dioxane	13	38	ND	Tetrahydrofuran	24	72	ND
Ethanol	167	500	ND	Toluene	30	89	ND
2-Ethoxyethanol	6	16	ND	Trichloroethylene	3	8	ND
Ethyl Acetate	167	500	ND	Xylenes (o-, m-, and p-)	73	217	ND
Ethyl Ether	167	500	ND				
Ethylbenzene	3	7	ND				

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Generated By: Ryan Bellone
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Date: 09/18/2024



Tested By: Kelsey Rogers
 Scientist

Date: 09/13/2024



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Reporting Limit Appendix

Heavy Metals - KY 902 KAR 45:190

Analyte	Limit (ppm)	Analyte	Limit (ppm)
Arsenic	1.5	Lead	0.5
Cadmium	0.5	Mercury	1.5

Microbials -

Analyte	Limit (CFU/g)	Analyte	Limit (CFU/g)
Total coliforms	100	Total aerobic count	10000

Residual Solvents - USP 467

Analyte	Limit (ppm)	Analyte	Limit (ppm)
Acetone	5000	Ethylene Oxide	1
Acetonitrile	410	Heptane	5000
Benzene	2	n-Hexane	290
Butane	5000	Isobutane	5000
1-Butanol	5000	Isopropyl Acetate	5000
2-Butanol	5000	Isopropyl Alcohol	5000
2-Butanone	5000	Isopropylbenzene	5000
Chloroform	60	Methanol	3000
Cyclohexane	3880	2-Methylbutane	290
1,2-Dichloroethane	5	Methylene Chloride	600
1,2-Dimethoxyethane	100	2-Methylpentane	290
Dimethyl Sulfoxide	5000	3-Methylpentane	290
N,N-Dimethylacetamide	1090	n-Pentane	5000
2,2-Dimethylbutane	290	1-Pentanol	5000
2,3-Dimethylbutane	290	n-Propane	5000
N,N-Dimethylformamide	880	1-Propanol	5000
2,2-Dimethylpropane	5000	Pyridine	200
1,4-Dioxane	380	Tetrahydrofuran	720
Ethanol	5000	Toluene	890
2-Ethoxyethanol	160	Trichloroethylene	80
Ethyl Acetate	5000	Xylenes (o-, m-, and p-)	2170
Ethyl Ether	5000		
Ethylbenzene	70		

Pesticides - CA DCC

Analyte	Limit (ppb)	Analyte	Limit (ppb)
Acequinocyl	4000	Imidacloprid	3000
Acetamiprid	5000	Kresoxim methyl	1000
Azoxystrobin	40000	Malathion	5000
Bifenazate	5000	Metalaxyl	15000
Bifenthrin	500	Methiocarb	30
Boscalid	10000	Methomyl	100
Carbaryl	500	Mevinphos	30
Carbofuran	30	Myclobutanil	9000
Chloranthraniliprole	40000	Naled	500
Chlorfenapyr	30	Oxamyl	200
Chlorpyrifos	30	Pacllobutrazol	30
Clofentezine	500	Permethrin	20000
Coumaphos	30	Phosmet	200
Cypermethrin	1000	Piperonyl Butoxide	8000
Diazinon	200	Prallethrin	400
Dichlorvos	30	Propiconazole	20000
Dimethoate	30	Propoxur	30
Dimethomorph	20000	Pyrethrins	1000
Ethoprophos	30	Pyridaben	3000
Etofenprox	30	Spinetoram	3000
Etoazrole	1500	Spinosad	3000
Fenhexamid	10000	Spiromesifen	12000
Fenoxycarb	30	Spirotetramat	13000
Fenpyroximate	2000	Spiroxamine	30
Fipronil	30	Tebuconazole	2000
Fonicamid	2000	Thiacloprid	30
Fludioxonil	30000	Thiamethoxam	4500

Mycotoxins - Colorado CDPHE

Analyte	Limit (ppb)	Analyte	Limit (ppb)
B1	5	B2	5
G1	5	G2	5
Ochratoxin A	5		

Pesticides - CA DCC

Analyte	Limit (ppb)	Analyte	Limit (ppb)
Abamectin	300	Hexythiazox	2000
Acephate	5000	Imazalil	30

