



## $\Delta^8$ -THC vape cartridges

**These carts are formulated without diluents other than added terpenes. This may lead to clogging, which normally can be easily removed. Please ask your store for instructions. Pre-heat prior to use. For use with proper cartridge batteries only; improper or warped batteries may lead to cartridge failure. Store upright at room temperature; do not refrigerate. Recommended voltage setting is between 3.3 and 3.8V. *Do not exceed 4.2V!* If device is leaking or does not function please contact the store where you purchased this cartridge.**

$\Delta^8$ -Tetrahydrocannabinol ( $\Delta^8$ -THC) is one of a series of naturally-occurring THC's, known as isomers, found in Cannabis Sativa L. plants. The 2018 USDA Farm Bill addresses all cannabinoids that are derived from hemp as follows:

*HEMP.—The term 'hemp' means the plant Cannabis sativa L. and any part of that plant, including the seeds thereof and all derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent on a dry weight basis.*

All of our starting material is directly derived from organically-grown hemp. We use time, temperature and pressure to convert our starting material into high purity  $\Delta^8$ -THC. Our conversion process does NOT involve solvents. As a byproduct of this process, a simulation of what happens over time in nature, we end up with trace amounts of  $\Delta^9$ -THC,  $\Delta^{10}$ -THC, iso-THC (exo-THC),  $\Delta^{6a(10a)}$ -THC and hexahydro-THC's. We analyze every batch by GC-MS to ensure that the  $\Delta^8$ -THC is greater than 90%, the total cannabinoid concentration is greater than 95% and that the  $\Delta^9$ -THC is within allowable limits. It is the express opinion of our legal experts that this product is legal under federal rules. We have attached the information from the lab, including a chromatogram and spectra of the  $\Delta^8$ -THC.

We are a small-batch, artisan cart supplier. We only use the highest quality cartridges available on the market. All of our cart batches are carefully hand-crafted, thoroughly checked and cleaned and batch numbered before we release them. We are proud of our products and our workmanship. If you find fault with our product please let us know so that we can rectify the situation. Some products may contain proprietary terpene mixtures. We formulate all of our own terpene mixtures; none are purchased pre-mixed. The terpenes do not exceed 5% of the total mass of the cartridge expressed as total terpene concentration unless otherwise noted on the package.

These products are intended for use only by adults over the age of 21. Vaping and vaping products may be hazardous to your health. We urge the consumer to educate themselves on the hazards of vaping and to take appropriate action based on their own individual needs.  $\Delta^8$ -THC may cause a positive drug test. Individuals requiring on-going drug testing are advised to use this and all hemp-derived products with caution. Do not use if you are pregnant, nursing or operating vehicles or heavy machinery. These are single-use cartridges only; ***do NOT refill! These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.***

Marco Krause  
Dr. MAK's Apothecary  
3435 Greystone Drive  
Austin, TX 78731



Project # 132467  
Control # 117182

**Project**

**Sample** 21MAK8C0118WC

**Matrix** other

**Date/Time Taken** Jan 18, 2021

**Date/Time Rec'd** Jan 18, 2021 19:50

**CERTIFICATE OF ANALYSIS**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>LOQ</u>	<u>Date</u>	<u>By</u>	<u>Method</u>	<u>Criteria</u>	<u>Status</u>
<b>Terpenes</b>								
Anisole	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Azulene	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
$\alpha$ -Bisabolol	0.76	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Borneol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Camphene	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Camphor	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
$\delta$ -3-Carene	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Caryophyllene oxide	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
$\beta$ -Caryophyllene	5.2	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
$\alpha$ -Cedrene	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Cedrol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Citral	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Eucalyptol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Eugenol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
$\alpha$ -Farnesene	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		

Copyright 2020, Krause Analytical LLC. All rights reserved.  
Results meet internal quality control criteria unless otherwise flagged.  
Sample data reported refers strictly to the sample indicated.  
LOQ - limit of quantification. ND - not detected above the LOQ  
Plant matter results reported on a dry weight basis  
Measurement uncertainty from root sum of squares

Respectfully submitted,

Mark C. Krause

Marco Krause  
Dr. MAK's Apothecary  
3435 Greystone Drive  
Austin, TX 78731



Project # 132467  
Control # 117182

**Project**

**Sample** 21MAK8C0118WC

**Matrix** other

**Date/Time Taken** Jan 18, 2021

**Date/Time Rec'd** Jan 18, 2021 19:50

**CERTIFICATE OF ANALYSIS**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>LOQ</u>	<u>Date</u>	<u>By</u>	<u>Method</u>	<u>Criteria</u>	<u>Status</u>
$\beta$ -Farnesene	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
cis- $\beta$ -Farnesene	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Fenchol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Fenchone	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Geraniol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Humulene	1.3	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Limonene	10	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
pseudo-Limonene	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Linalool	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Myrcene	11	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Neral	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
cis-Neridol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
trans-Nerilidol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Nerol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Ocimene 1	0.98	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Ocimene 2	067	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
$\alpha$ -Phellandrene	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		

Copyright 2020, Krause Analytical LLC. All rights reserved.

Results meet internal quality control criteria unless otherwise flagged.

Sample data reported refers strictly to the sample indicated.

LOQ - limit of quantification. ND - not detected above the LOQ

Plant matter results reported on a dry weight basis

Measurement uncertainty from root sum of squares

Marco Krause  
Dr. MAK's Apothecary  
3435 Greystone Drive  
Austin, TX 78731



Project # 132467  
Control # 117182

**Project**

**Sample** 21MAK8C0118WC

**Matrix** other

**Date/Time Taken** Jan 18, 2021

**Date/Time Rec'd** Jan 18, 2021 19:50

**CERTIFICATE OF ANALYSIS**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>LOQ</u>	<u>Date</u>	<u>By</u>	<u>Method</u>	<u>Criteria</u>	<u>Status</u>
cis-Phytol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
trans-Phytol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
$\alpha$ -Pinene	3.4	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
$\beta$ -Pinene	3.1	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
iso-Pulegol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Pulegone	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Sabinene	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
$\alpha$ -Terpinene	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
$\alpha$ -Terpineol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
$\gamma$ -Terpineol	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Terpinolene	8.8	mg/g	0.5	1/18/21	MCK	HS-GC-MS		
Valencene	ND	mg/g	0.5	1/18/21	MCK	HS-GC-MS		

Copyright 2020, Krause Analytical LLC. All rights reserved.

Results meet internal quality control criteria unless otherwise flagged.

Sample data reported refers strictly to the sample indicated.

LOQ - limit of quantification. ND - not detected above the LOQ

Plant matter results reported on a dry weight basis

Measurement uncertainty from root sum of squares



Underground Alchemy LLC  
3435 Greystone Suite 102  
Austin, TX 78731

Project # 132451  
Control # 117147

**Project**

Sample 21UA8B0108

Matrix other

Date/Time Taken Jan 9, 2021

Date/Time Rec'd Jan 9, 2021 10:00

**CERTIFICATE OF ANALYSIS**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>LOQ</u>	<u>Date</u>	<u>By</u>	<u>Method</u>	<u>Criteria</u>	<u>Status</u>
<b>Potency</b>								
Total cannabinoids	98.8	%	0.1	1/9/21	MCK	GC-MS		
Cannabichromene (CBC)	ND	%	0.1	1/9/21	MCK	GC-MS		
Cannabidiol (CBD)	0.21	%	0.1	1/9/21	MCK	GC-MS		
Cannabigerol (CBG)	ND	%	0.1	1/9/21	MCK	GC-MS		
Cannabinol (CBN)	1.2	%	0.1	1/9/21	MCK	GC-MS		
$\Delta$ 8-Tetrahydrocannabinol (THC)	94.5	%	0.1	1/9/21	MCK	GC-MS		
$\Delta$ 9-Tetrahydrocannabinol (THC)	0.73	%	0.1	1/9/21	MCK	GC-MS		
exo-Tetrahydrocannabinol (THC)	0.78	%	0.1	1/9/21	MCK	GC-MS		
Additional hydrocannabinols (HHCs)	1.4	%	0.1	1/9/21	MCK	GC-MS		
Total $\Delta$ 9-THC, post-decarboxylation	0.73	%	0.1	1/9/21	MCK	GC-MS	0.3 +/- 0.47	Pass
<b>Residual Solvents</b>								
Acetone	ND	mg/Kg	200	1/9/21	MCK	USP467M		
Acetonitrile	ND	mg/Kg	200	1/9/21	MCK	USP467M		
Benzene	ND	mg/Kg	200	1/9/21	MCK	USP467M		
Butanes, total	ND	mg/Kg	100	1/9/21	MCK	USP467M		

Copyright 2020, Krause Analytical LLC. All rights reserved.  
Results meet internal quality control criteria unless otherwise flagged.  
Sample data reported refers strictly to the sample indicated.  
LOQ - limit of quantification. ND - not detected above the LOQ  
Plant matter results reported on a dry weight basis  
Measurement uncertainty from root sum of squares

Respectfully submitted,

Mark C. Krause

Underground Alchemy LLC  
3435 Greystone Suite 102  
Austin, TX 78731



Project # 132451

Control # 117147

**Project**

**Sample** 21UA8B0108

**Matrix** other

**Date/Time Taken** Jan 9, 2021

**Date/Time Rec'd** Jan 9, 2021 10:00

**CERTIFICATE OF ANALYSIS**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>LOQ</u>	<u>Date</u>	<u>By</u>	<u>Method</u>	<u>Criteria</u>	<u>Status</u>
2-Butanol	ND	mg/Kg	200	1/9/21	MCK	USP467M		
Cumene	ND	mg/Kg	50	1/9/21	MCK	USP467M		
Cyclohexane	ND	mg/Kg	50	1/9/21	MCK	USP467M		
1,2-dichloroethane	ND	mg/Kg	50	1/9/21	MCK	USP467M		
1,4-Dioxane	ND	mg/Kg	200	1/9/21	MCK	USP467M		
Ethanol	ND	mg/Kg	200	1/9/21	MCK	USP467M		
2-Ethoxyethanol	ND	mg/Kg	50	1/9/21	MCK	USP467M		
Ethyl acetate	ND	mg/Kg	50	1/9/21	MCK	USP467M		
Ethyl ether	ND	mg/Kg	50	1/9/21	MCK	USP467M		
Ethylbenzene	ND	mg/Kg	50	1/9/21	MCK	USP467M		
Ethylene glycol	ND	mg/Kg	200	1/9/21	MCK	USP467M		
Ethylene oxide	ND	mg/Kg	100	1/9/21	MCK	USP467M		
Heptanes	ND	mg/Kg	50	1/9/21	MCK	USP467M		
Hexanes	ND	mg/Kg	50	1/9/21	MCK	USP467M		
Isopropanol	ND	mg/Kg	100	1/9/21	MCK	USP467M		
Isopropyl acetate	ND	mg/Kg	50	1/9/21	MCK	USP467M		
Methanol	ND	mg/Kg	500	1/9/21	MCK	USP467M		

Copyright 2020, Krause Analytical LLC. All rights reserved.

Results meet internal quality control criteria unless otherwise flagged.

Sample data reported refers strictly to the sample indicated.

LOQ - limit of quantification. ND - not detected above the LOQ

Plant matter results reported on a dry weight basis

Measurement uncertainty from root sum of squares



Underground Alchemy LLC  
3435 Greystone Suite 102  
Austin, TX 78731

Project # 132451  
Control # 117147

**Project**

**Sample** 21UA8B0108

**Matrix** other

**Date/Time Taken** Jan 9, 2021

**Date/Time Rec'd** Jan 9, 2021 10:00

**CERTIFICATE OF ANALYSIS**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>LOQ</u>	<u>Date</u>	<u>By</u>	<u>Method</u>	<u>Criteria</u>	<u>Status</u>
Methylene chloride	ND	mg/Kg	50	1/9/21	MCK	USP467M		
Pentanes, total	ND	mg/Kg	100	1/9/21	MCK	USP467M		
Propane	ND	mg/Kg	100	1/9/21	MCK	USP467M		
Tetrahydrofuran	ND	mg/Kg	50	1/9/21	MCK	USP467M		
Toluene	ND	mg/Kg	50	1/9/21	MCK	USP467M		
Trichloroethene	ND	mg/Kg	50	1/9/21	MCK	USP467M		
Xylenes, total	ND	mg/Kg	100	1/9/21	MCK	USP467M		

*Copyright 2020, Krause Analytical LLC. All rights reserved.*

*Results meet internal quality control criteria unless otherwise flagged.*

*Sample data reported refers strictly to the sample indicated.*

*LOQ - limit of quantification. ND - not detected above the LOQ*

*Plant matter results reported on a dry weight basis*

*Measurement uncertainty from root sum of squares*

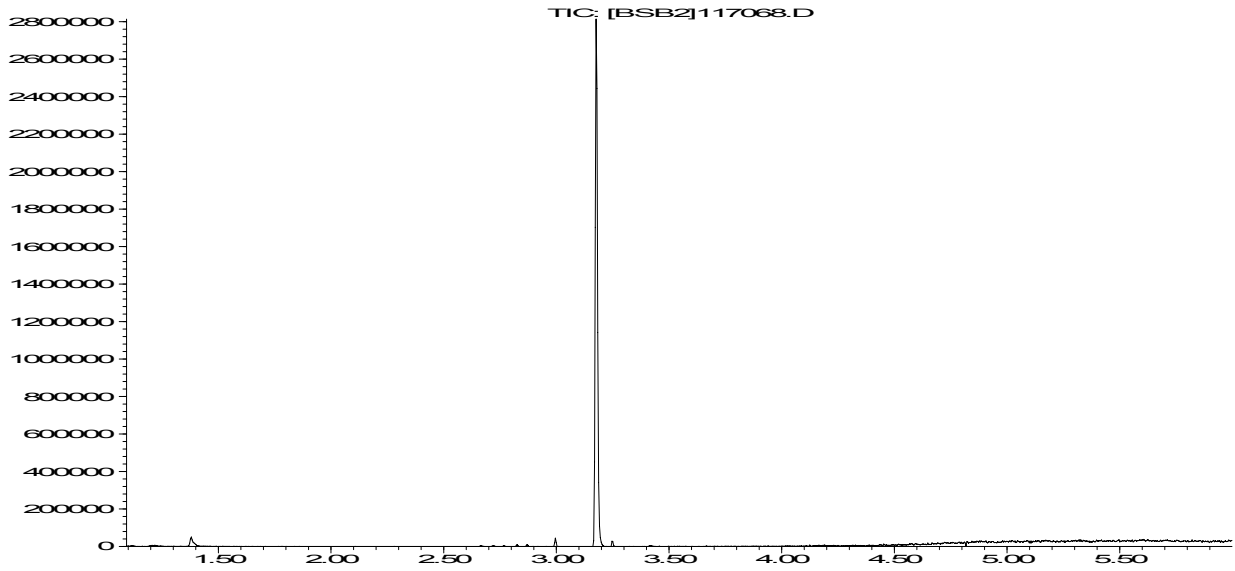


krause analytical

117147

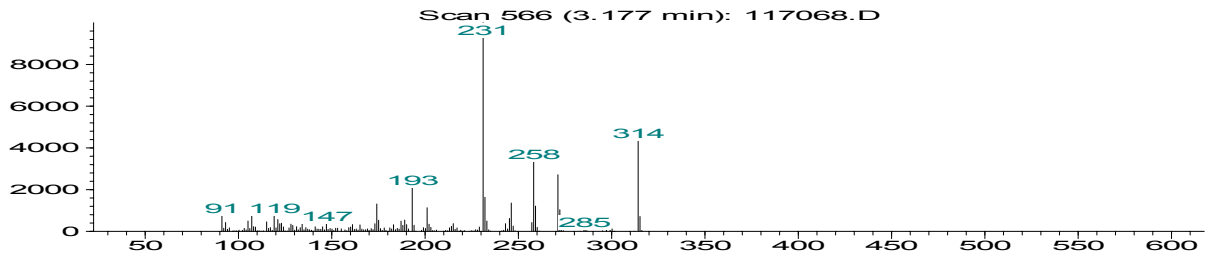
20UA8B0108

Abundance

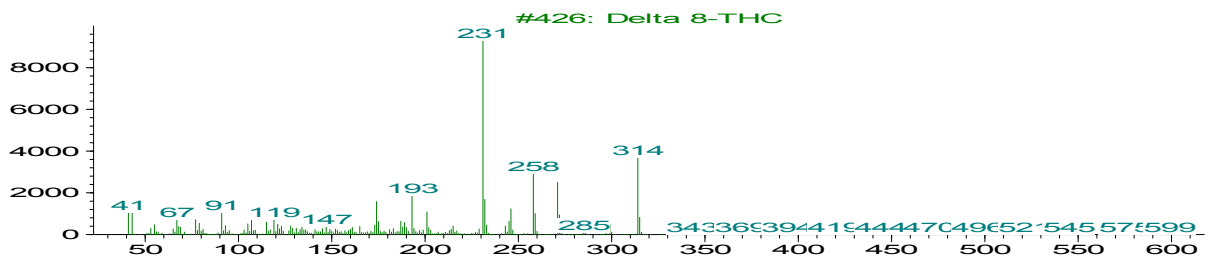


Spectral Match 98%

Abundance



Abundance



*Krause Analytical 8127 Mesa Drive Suite B-206 Austin, TX 78759 (512) 569-9586  
mark.krause@krauseanalytical.com*