

# Botanical, Synthetic & Cannabis Derived Terpenes Explained

Industry experts have stepped in to explain what terpenes are and where they come from.

CASSELBERRY, FLORIDA, UNITED STATES, February 5, 2023 /EINPresswire.com/ -- First, let's discuss the rise of synthetic terpenes.

Now that terpenes are all the rage, industry experts have seen a significant rise in synthetics and brands adding terps to their tinctures, oils, ointments, beverages, and edibles. There are even companies, like Altria (the tobacco giant behind Marlboro) working to capitalize on the wave by creating designer strains with specific [terpene](#) concentrations.

Unlike food purchased at a grocery store, which has standardized product labels, pages of reviews, and easily researched manufacturing info, there remain a number of unanswered and under-researched questions on [cannabis](#) & hemp additives and how they may or may not impact our health.

Here's what experts know \*so far\* on the difference between synthetic and botanical (natural) terpenes, and what buyers should look for when choosing a product like Delta 8 based on terpenes.

Synthetic terpenes are manufactured in a laboratory setting to create "theoretically perfect" terpenes. Like other food artificial food additives, synthetic terpenes may be "food grade," but they do not come from a plant.

Botanically-derived terpenes (BDTs) are naturally produced by plants to repel predators or seduce pollinators. They're used widely in products like lavender lotions (linalool) and car air fresheners (pinene). Botanical terpenes extracted from plants other than cannabis are found in many cartridges, edibles and topicals, so those with an allergy to certain essential oils should

**green** SCIENTIFIC LABS  
**CERTIFICATE OF ANALYSIS**  
 ISO/IEC: 17025:2017 Accreditation #: 103104  
 License #: CMTL-0004

Leafy8  
 222 Wilshire Blvd.  
 Casselberry, FL  
 32707  
 855-453-2398  
 Order #: 737988  
 Retail Batch #: LB-2023-TERP

**TERPENES TOTAL**  
 GC-MS TESTED (61.103 %)

**Sample Prep**  
 Tech: 3075  
 SOP: 421  
 Batch Number: 58210  
 Batch Date: 01/02/2023 10:53:11

**Sample Analysis**  
 Date/Time: 01/07/2023 17:09:47  
 Tech: 2015  
 SOP: 419  
 Peak Weight: 0.4379 g  
 Volume: 20 ml

TERPENE	LOADING (%)	DIL.	RESULTS (%)	TERPENE	LOADING (%)	DIL.	RESULTS (%)
β-Caryene	0.0050000	1	0.551	Camphol	0.0050000	1	0.010
alpha-Bisabolol	0.0050000	1	0.876	Camphor acetate	0.0050000	1	ND
alpha-Cubane	0.0050000	1	ND	Caradi	0.0050000	1	ND
alpha-Humulene	0.0050000	1	4.486	Hexahydrothumul	0.0050000	1	0.258
alpha-Pinene	0.0050000	1	3.306	Isobornol	0.0050000	1	ND
alpha-Terpinene	0.0050000	1	0.650	Isopropylid	0.0050000	1	ND
beta-Humulene	0.0050000	1	4.234	Limonene	0.0050000	1	2.143
beta-Phenol	0.0050000	1	1.546	Linalool	0.0050000	1	3.308
Bornol	0.0050000	1	0.151	Nerol	0.0050000	1	ND
Camphene	0.0050000	1	0.388	pinene-1,5-diene	0.0050000	1	4.148
Camphor	0.0050000	1	0.021	Pinene	0.0050000	1	0.072
Caradiolene oxide	0.0050000	1	0.260	Sabinene hydroxide	0.0050000	1	ND
Caradiol	0.0050000	1	0.131	Terpinolol	0.0050000	1	1.085
cis-Bornolol	0.0050000	1	ND	Terpinolene	0.0050000	1	ND
cis-Chimonene	0.0050000	1	0.261	trans-Caryophyllene	0.0050000	1	15.050
Eucalyptol	0.0050000	1	0.876	trans-Nerolidol	0.0050000	1	0.212
Eucalyptol	0.0050000	1	0.876	trans-Chimonene	0.0050000	1	13.983
Fenchol alcohol	0.0050000	1	0.696	Valerene	0.0050000	1	ND
gamma-Terpinene	0.0050000	1	0.439				

Bar chart showing Weight (%) for Top Terpenes: trans-Caryophyllene (~15%), trans-Chimonene (~14%), Limonene (~2%), alpha-Pinene (~1%), beta-Phenol (~1%), Linalool (~1%), beta-Phenol (~1%), Terpinolol (~1%).

Diana Asensio, M.S.  
 Lab Director

Florida  
 4021 SW 47th Avenue, Suite 208  
 Davie, FL 33314  
 (954) 514-9343

This COA is governed by the terms and conditions listed on: <https://www.greenscientificlabs.com/terms-of-use>  
 Page 2 of 4

Lab Result - Leafy8 Jack Herer Cannabis Derived Terpene Profile

make sure to check the label.

Cannabis-derived terpenes (CDTs) also fall in the botanical bucket. Technically, they're the same, since the myrcene in mangoes is the same myrcene that's found in cannabis. In analogous terms, consider how makers preserve terpene content by flash-freezing buds right at harvest. Like cold pressed juices they retain more beneficial compounds from the mother plant, but are also less common because of the costly methods to extract them (it takes a lot of good, hard grown bud to make a little bit of pure CDTs).

So if terpenes are naturally occurring, why would anyone go through the effort and costs to design their own?



Cannabis capitalism. The tobacco company Altria recently began making moves to patent designer strains with specific terpene concentrations that offer specialized flavor and aroma profiles. They hope these strains will create consistent nuanced entourage effects and associated therapeutic benefits that would make any marketing department giddy with glee.

“

"Cannabis derived terpenes mimic the natural strain profile found in the plant. This is as close as it gets to whole plant in the Delta 8 space."

*Leafy8*

How To Tell if Cannabis Derived Terpenes Are Genuine

Many vendors claim to offer cannabis derived terpenes (CDTs). However, due to the lack of regulation in this growing industry, it can be almost impossible to tell if the products are the genuine article. Botanical terps used in Delta 8 cartridges, edibles, and concentrates are typically made by mixing individual terpenes together to create a strain profile. That mean a set ratio of terpenes can be

identified on the Certificate of Authenticity (COA) when the product undergoes pre-release lab testing if the manufacturer pays for terpene analysis on their sample.

There are over 400 naturally occurring terpenes in cannabis. The individual makeup of each strain is dependent on genetics and growing conditions. True CDTs used in Delta 8 and cannabis should contain a similarly rich mixture of terpenes, instead of just a four or five. This is how industry experts can tell the difference between BDTs and CDTs.

This means that the best way to tell if a vendor's CDTs are genuine is to read the lab result that can be found by scanning the QR code affixed to the product label. Look for terpene analysis. A properly extracted and prepared CDT strain profile should indicate at least 10-20 different terpenes at uneven concentrations.

The above lab test for Leafy8's Jack Herer cartridge depicts a Christmas tree of different terpenes. This is a clear example of a strain profile that has been extracted from cannabis.

## The Final Word

Proceed with caution, especially with consuming synthetic terpenes which are often found in questionable products made with distillate or isolate.

While synthetic terpenes may end up being entirely safe, there is always a risk of health effects from synthetics and their chemical residues left behind. Unlike GMO foods, there's currently no research on cannabis additives, and it's still unknown how well synthetic and natural terpenes interact together and inside the body.

The technology is also still under development and many of the professionals behind it don't yet fully understand botanical and synthetic terpenes. Until we have more answers, industry experts agree to seek out terpenes labeled as "whole plant", "live resin", "CDT", which means that the content of the product is as close to the original cannabis plant as possible.

And when in doubt, ask.

Ask the budtender. Ask the dispensary. Ask the company who produces the product what they use – does it contain botanical or synthetic, or cannabis derived terpenes, and whether they're adding other essential oils as well.

Whole plant products with all of the cannabinoids and terpenes intact are still the best bet, industry experts point out.

Someday cannabis will follow food, and there will come a point when brands are required to be more transparent and list all ingredients. Until then it falls in the buyer's hands to set the standard and demand high quality, safe, transparent, and effective products by voting with their dollars.

Press Team

Leafy8 Delta 8, Delta 9, HHC & CBD Products

+1 855-453-2398

[email us here](#)

Visit us on social media:

Facebook  
Instagram

---

This press release can be viewed online at: <https://www.einpresswire.com/article/615256701>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2023 Newsmatics Inc. All Right Reserved.