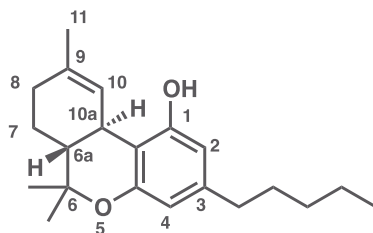
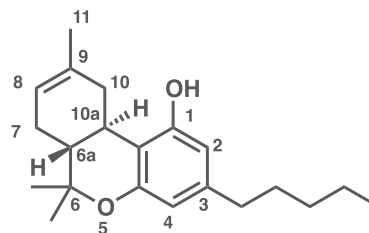


## WHAT IS DELTA-8 TETRAHYDROCANNABINOL?

Delta-8 tetrahydrocannabinol (Delta-8) is a positional isomer of delta-9 tetrahydrocannabinol (Delta-9), the compound typically referred to as “THC.” As geometric isomers, Delta-8 and Delta-9 possess the same molecular mass and formula. The only difference is a double bond located between the 8 and 9 carbons (Delta-8) instead of between the 9 and 10 carbons (Delta-9).



**Δ9-Tetrahydrocannabinol (Delta-9)**



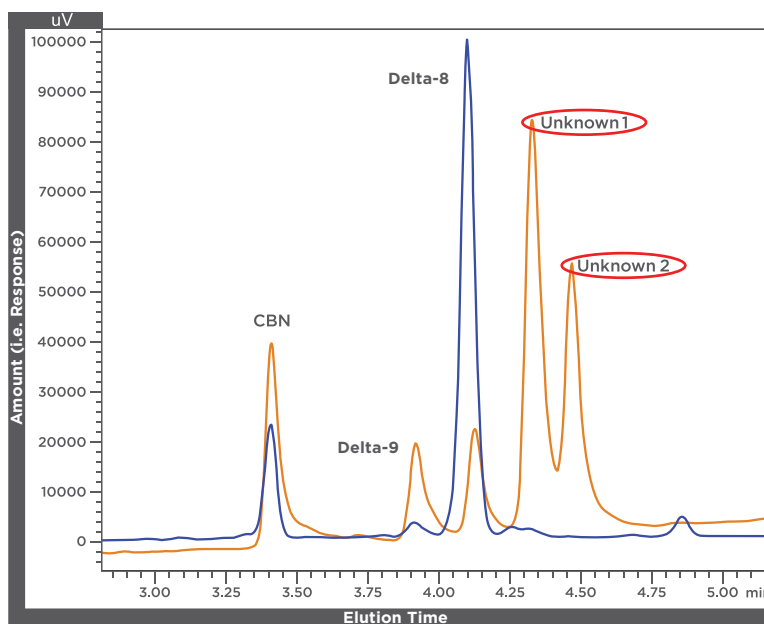
**Δ8-Tetrahydrocannabinol (Delta-8)**

In the Delta-8 tetrahydrocannabinol Whitepaper, The Werc Shop® analyzes research and dives into a pharmacological comparison of Delta-9 and Delta-8 by exploring animal and human data. For example, in one of the earliest literature references of Delta-8 administration to humans, Delta-8 was reported to have 2/3 the psychoactive potency of Delta-9 via both oral and intravenous routes.

Delta-8 has recently become commercially available in regulated cannabis states. Interestingly, users report that inhaling Delta-8, even at high doses, does not lead to a psychoactive effect. However, users describe a feeling of well-being and mental stimulation not unlike vaping CBD. In contrast, ingesting Delta-8 appears to elicit a psychoactive effect at a dose of 25 mg. The psychoactive effects produced by ingesting Delta-8 seem to be distinct from those of Delta-9: Users report experiences that include a feeling of well-being mixed with a stimulating, but non-assertive psychoactivity. Research suggests that Delta-8 is metabolized into 11-OH Delta-8 by the same oxidative pathway that transforms Delta-9 to 11-OH Delta-9 THC in humans.

Because of the limited commercial availability of high-purity Delta-8, crude preparations of Delta-8 (with purities of less than 50%) are available in adult-use retail outlets and medical cannabis dispensaries. Often Delta-8 is present alongside Delta-9 and various unidentified cannabinoid analogues as depicted in the HPLC chromatogram below. These products appear to be the result of uncontrolled processing steps and often have attendant side-products and unidentified cannabinoid derivatives present.

Cannabinoid	Elution Time (min.)
THCV	2.3
CBD	2.4
CBG	2.5
CBDA	2.8
CBGA	3.2
CBN	3.4
Delta-9	3.9
Delta-8	4.1
CBC	4.7
THCA-A	5.6



**HPLC Chromatogram Overlay of Low Purity and High-Purity Delta-8 Samples**

The Werc Shop has dedicated the last six years to building a deep understanding of the cannabis plant. In the process, countless cultivars have been profiled and many new components identified. The Werc Shop possesses a catalogue of high-purity cannabinoids, such as Delta-8, that are produced in compliance with state regulated cannabis systems through our licensed technology partners.

For more information about **Delta-8** check out our whitepaper or contact your representative to learn more.

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