



April 1, 2021

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Re: Legal Status of Delta-8-THC Derived from Hemp

To Whom It May Concern:

This letter is written in response to your request for an opinion on the legal status of delta-8-tetrahydrocannabinol (Δ 8THC) from hemp. The specific question addressed is: ***“Is it lawful to distribute hemp-derived Δ 8THC products under United States (US) federal law?”*** Subject to the qualifications contained in this letter, the answer to this question is ***“likely yes”***. Due to uncertainty in the law, the distribution of hemp-derived Δ 8 THC products under federal law bears some risk.

This opinion is specifically for Nutra Pure Extraction, LLC (Nutra Pure) and no other party. It is based on the Agricultural Act of 2014 (2014 Farm Act)¹, the Agriculture Improvement Act of 2018 (Farm Bill)², the federal Controlled Substances Act (CSA)³, the federal Analogue Act (AA)⁴, and the Drug Enforcement Agency’s (DEA) recently published Interim Final Rule (IFR)⁵. This letter does not address any requirements under the Food, Drug & Cosmetic Act and associated regulations by the Food and Drug Administration (FDA). Finally, this letter does not address the varying individual state regulations of Δ 8THC. For information regarding the legality of Δ 8THC in a given state, please do not hesitate to reach out to Kight Law.

INTRODUCTION

Δ 8THC is a cannabinoid of the tetrahydrocannabinol “family” of compounds commonly derived from the cannabis plant. It is a double bond isomer of Δ 9THC, a more well-known cannabinoid in the tetrahydrocannabinol family that is also produced by the cannabis plant. An isomer is one of two or more compounds that contain the same number of atoms of the same elements but differ in structural arrangement and properties. There are thirty (30) known THC isomers. With respect to Δ 8THC and Δ 9THC, they differ with respect to the location of a single double bond.

Despite their similarities, the structural difference between Δ 8THC and Δ 9THC makes a substantial difference in how they affect our bodies. It also affects their legal status. Δ 8THC is not a controlled

¹ <https://www.govinfo.gov/content/pkg/BILLS-113hr2642enr/pdf/BILLS-113hr2642enr.pdf>

² <https://www.congress.gov/115/bills/hr2/BILLS-115hr2enr.pdf>

³ 21 U.S. Code § 801 *et seq.*

⁴ <https://www.law.cornell.edu/uscode/text/21/813>

⁵ https://www.deadiversion.usdoj.gov/fed_regs/rules/2020/fr0821.htm

substance when derived from hemp.

Δ8THC FROM HEMP IS NOT A CONTROLLED SUBSTANCE

Hemp initially became exempt from the CSA, and thus removed from the list of controlled substances, by virtue of the 2014 Farm Act when produced pursuant to a state's industrial hemp pilot program. Nearly forty (40) states created pilot programs under the 2014 Farm Act. The current Farm Bill, enacted at the end of 2018, expressly provides that hemp-derived cannabinoids, derivatives, extracts, and isomers are included within the definition of lawful hemp. In other words, from a legal standpoint they are all "hemp". Specifically, the Farm Bill distinguishes lawful hemp from illegal marijuana⁶ and defines hemp as follows:

*(1) 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. (emphasis added)*⁷

The Farm Bill treats hemp as an agricultural commodity, putting it on par with wheat, grain, and soy. Hemp is not a controlled substance under the CSA.⁸ Importantly, under the Farm Bill hemp-derived "cannabinoids", "derivatives", "extracts", "isomers", etcetera are themselves "hemp" and thus not controlled substances. Δ8THC is a "cannabinoid" and is not a controlled substance when derived from hemp, regardless of its concentration.

Δ8THC DERIVED FROM CBD IS NOT A CONTROLLED SUBSTANCE

It is clear that Δ8THC which is naturally expressed in the hemp plant is not a controlled substance. Currently, most Δ8THC on the market is a derivative of cannabidiol (CBD) from hemp. This is because current hemp cultivars do not express Δ8THC in sufficient concentrations or quantities to be viable economically. For the reasons stated below, Δ8THC derived from CBD⁹ is not a controlled substance.

As discussed above, under the Farm Bill's definition of "hemp", CBD is the same thing as "hemp". The statute does not distinguish between a hemp plant and its cannabinoids, extracts, derivatives, etcetera. From a legal standpoint, all of these things are "hemp". A derivative of CBD is by definition a derivative of hemp and is thus not a controlled substance. The legal question is whether or not Δ8THC produced from CBD is a "derivative" of CBD. For the reasons discussed below, the answer is "yes".

The Chemicool Dictionary defines a derivative as "a compound that can be imagined to arise or actually be synthesized from a parent compound by replacement of one atom with another atom

⁶ 21 U.S.C. § 802(16)

⁷ 7 U.S.C. § 1639o(1)

⁸ 21 U.S.C. § 802(16)(B): "The term "marihuana" does not include— (i) hemp, as defined in section 1639o of title 7."

⁹ CBD is one of the most abundant cannabinoids in cannabis and can be derived from either a marijuana or a hemp plant. In this letter, all references to CBD are to CBD that has been derived from hemp.

or group of atoms."¹⁰ Wikipedia defines a chemical derivative as “a compound that is derived from a similar compound by a chemical reaction.”¹¹

All of the standard operating procedures (SOP) I have reviewed for converting CBD to $\Delta 8$ THC describe a chemical reaction initiated by a catalyst in which the CBD is converted to $\Delta 8$ THC and other minor cannabinoids and compounds. In fact, the US government holds a patent for converting CBD to $\Delta 8$ THC.¹² In an informal survey of four highly respected US analytical scientists, three of whom are the chief science officers for hemp and cannabis analytical testing laboratories¹³, all unanimously agreed that $\Delta 8$ THC does not degrade, oxidize, or otherwise convert to $\Delta 9$ THC by the mere application of heat.

Based on most commonly used processes for producing $\Delta 8$ THC from CBD, including a US government patented SOP, $\Delta 8$ THC “arises from a parent compound” (i.e., CBD) through a true “chemical reaction” (i.e., not just a heat-induced transformation or degradation). For this reason, $\Delta 8$ THC is a “derivative” of CBD under the above definitions.

Finally, since the statutory definition of “hemp” includes CBD, and $\Delta 8$ THC is a derivative of it, $\Delta 8$ THC falls within the statutory definition of hemp and is not a controlled substance. This conclusion follows the general rule, adopted in the Farm Bill, that the source of a cannabinoid determines its legal status. When a cannabinoid is derived from marijuana it is a controlled substance; however, when it is derived from hemp it is not a controlled substance. This is colloquially known in the hemp industry as the “Source Rule”, which I developed several years ago.¹⁴

$\Delta 8$ THC FROM HEMP IS NOT A CONTROLLED SUBSTANCE UNDER THE FEDERAL ANALOGUE ACT

$\Delta 8$ THC from hemp is not a controlled substance under the federal Analogue Act (AA)¹⁵. The AA provides for any chemical that is “substantially similar” to a controlled substance listed in Schedule I or II of the CSA, and which has a “stimulant, depressant, or hallucinogenic effect on the central nervous system (CNS) that is substantially similar to or greater than” the controlled substance, to be treated as if it were listed in Schedule I when intended for human consumption. There are several reasons that hemp-derived $\Delta 8$ THC is not a controlled substance under the AA.

¹⁰ <https://www.chemicool.com/definition/derivative.html>

¹¹ [https://en.wikipedia.org/wiki/Derivative_\(chemistry\)](https://en.wikipedia.org/wiki/Derivative_(chemistry))

¹² “Conversion of cbd to delta8-thc and delta9-thc”, US Patent No. US20040143126A1.
<https://patents.google.com/patent/US20040143126A1/en>

¹³ The names of these four scientists are not included in this letter, nor are their individual responses. This is because my inquiry regarding this particular issue was general in nature and none of the scientists were made aware of this opinion letter or any facts whatsoever about the basis for my inquiry. They responded in good faith as friends to the following question: “In your opinion, is it possible for delta-8 to convert to delta-9 via the heat applied through vaping and/or a GC crime lab test?”

¹⁴ See, eg., <https://cannabusiness.law/cbd-and-the-source-rule/>,
<https://www.cannabisbusinessexecutive.com/2018/06/cbd-not-controlled-substance-source-rule-applies/>, <https://www.lexology.com/library/detail.aspx?g=4ca075a2-599c-401f-a069-ba5cda71b721>

¹⁵ <https://www.law.cornell.edu/uscode/text/21/813>

First, the CSA expressly provides that “*tetrahydrocannabinols in hemp*” are not controlled substances.¹⁶ This specificity in the CSA as to THC in hemp overrides any contrary general provisions in the AA. Second, the effect that $\Delta 8$ THC has on the CNS is not substantially similar to the effects of $\Delta 9$ THC, a Schedule I controlled substance. Its effects are much less potent.¹⁷ Third, hemp has been removed from the CSA. As discussed above, hemp-derived $\Delta 8$ THC meets the legal definition of “hemp” under the Farm Bill. Legally speaking, it is hemp and is not a controlled substance. For these reasons, $\Delta 8$ THC from hemp is not a controlled substance under the AA.

DRUG ENFORCEMENT ADMINISTRATION REGULATION OF DELTA-8

It is worth mentioning that on August 21, 2020, the Drug Enforcement Administration (DEA) published its Interim Final Rule (IFR) in the federal register, giving it the effect of law. In its IFR, the DEA clarified its position on the Agricultural Improvement Act of 2018, (AIA) by stating:

“The AIA does not impact the control status of synthetically derived tetrahydrocannabinols (for Controlled Substance Code Number 7370) because the statutory definition of “hemp” is limited to materials that are derived from the plant Cannabis sativa, L. For synthetically derived tetrahydrocannabinols, the concentration of $\Delta 9$ -THC is not a determining factor in whether the material is a controlled substance. All synthetically derived tetrahydrocannabinols remain schedule I controlled substances.” DEA IFR.

While this prohibition on “synthetically derived tetrahydrocannabinols” does not explicitly mention $\Delta 8$ THC, it is possible the DEA could construe the chemical reaction that is required to convert hemp-derived cannabidiol (CBD) to $\Delta 8$ THC as a process that results in a synthetic form of THC, thereby taking the position that it is a schedule 1 controlled substance under the CSA.

It is the position of this law firm (and others) that this chemical reaction does not create a synthetic form of THC. However, this is an open question of law and for that reason, anyone manufacturing or distributing $\Delta 8$ THC products is doing so with risk and is potentially subject to civil asset forfeiture and/or criminal prosecution.

CONCLUSION

The cannabinoid $\Delta 8$ THC is not a controlled substance under the federal CSA when it is derived from hemp, including when derived from CBD. This is because the federal legal definition of hemp includes “cannabinoids” and “derivatives”. Additionally, $\Delta 8$ THC from hemp is not a controlled substance under the federal AA because tetrahydrocannabinols from hemp are not controlled substances, $\Delta 8$ THC does not have an effect on the CNS that is substantially similar to a controlled substance, and hemp-derived $\Delta 8$ THC meets the definition of “hemp” under the Farm Bill. Hemp has been removed from the CSA.

¹⁶ 21 U.S.C. § 812(c)(17)

¹⁷ See, eg, “Delta-8- and delta-9-tetrahydrocannabinol; Comparison in man by oral and intravenous administration”, by Leo E. Hollister M.D. and H. K. Gillespie B.A., Volume 14, Issue 3 of Clinical Pharmacology and Therapeutics, 1973, which found that the potency of $\Delta 8$ THC relative to $\Delta 9$ THC is two-thirds (2/3).

Despite the fact that hemp (and its extracts, derivatives, and cannabinoids) were removed from the language of the CSA, the lack of clarity in the DEA's IFR makes it difficult to say with any certainty whether $\Delta 8$ THC would be classified as a controlled substance. Due to this uncertainty, there is a possibility the DEA would take the position that the chemical process that creates $\Delta 8$ THC results in a synthetic cannabinoid, potentially implicating it under the DEA's IFR and the CSA.

It is important to note that, while $\Delta 8$ THC has been known and studied in a scientific context for several decades¹⁸, it is new to the consumer market. I am unaware of any court cases that have considered the legal status of $\Delta 8$ THC. As of this date, the legal arguments and positions presented in this letter have not been vetted in a court and it is not known whether a court would adopt them. While we contend that this analysis is supported by a fair, reasonable, and coherent analysis of the pertinent law, we cannot guarantee any specific outcome. For this reason, there currently exists uncertainty and risk, including the risk of prosecution, associated with manufacturing, possessing, selling, and using $\Delta 8$ THC. As a result, the several states you have excluded selling $\Delta 8$ THC products in due to their unclear state laws on hemp and CBD products represent a high level of caution, which may be excessive but which we believe is appropriate given the current uncertain risk profile of $\Delta 8$ THC under those state's laws and regulations.

Finally, given that use of $\Delta 8$ THC produces intoxication it is important to consider how it is marketed and sold, even given that it is not a controlled substance. For example, we do not advise selling it to minors and recommend that any marketing materials conspicuously disclose its intoxicating effects and also caution against driving, using heavy machinery, and participating in other similar activities while under its influence.

Please do not hesitate to contact me if you have any questions.

Sincerely,



Rod Kight
Attorney



Philip M. Snow
Philip M. Snow
Attorney

¹⁸ Id.