



July 9, 2021

David S. Jones
Assistant Attorney General
Office of the Attorney General
State of South Carolina
PO Box 11549
Columbia, SC 29211

Re: Hemp Derived Delta-8 THC in South Carolina

Dear Mr. Jones:

This letter follows a conversation we had on June 25, 2021 regarding the legal status of hemp-derived delta-8 tetrahydrocannabinol ($\Delta 8$ THC) under federal law and the laws of South Carolina. As we discussed, and for the reasons set forth in this letter, $\Delta 8$ THC is not a controlled substance under South Carolina law.

Please note that, while I grew up in South Carolina and graduated from both Furman University and the South Carolina School of Law, I am not licensed to practice law in South Carolina. I am licensed in North Carolina and Oregon.

INTRODUCTION

This position statement addresses the legal status of hemp-derived cannabinoids, including $\Delta 8$ THC, under South Carolina law. You have previously been provided with the legal position statement my law firm prepared for the Hemp Industries Association (HIA) regarding the legal status of $\Delta 8$ THC under federal law. This letter should be read as a companion to that letter.

The specific issue addressed in this letter is: “*Are hemp-derived cannabinoids and compounds, including $\Delta 8$ THC, with delta-9 tetrahydrocannabinol ($\Delta 9$ THC) concentrations that do not exceed three tenths of one percent (0.3%) on a dry weight basis controlled substances under South Carolina (SC) law?*” For the reasons set forth in this letter the answer is “no”.

The analysis contained in this position statement is based on the SC Hemp Farming Act (HFA)¹, the industrial hemp provisions of the federal Agricultural Act of 2014 (2014 Farm Bill)², the hemp provisions of the Agriculture Improvement Act of 2018 (2018 Farm Bill)³, and SC statutes regarding controlled substances⁴. This letter is limited to an analysis of whether or not $\Delta 8$ THC and other hemp-derived cannabinoids and compounds are controlled substances

¹ SC Code of Laws Title 46, Chapter 55

² 7 U.S. Code § 5940

³ 7 U.S. Code § 1639o *et seq.*

⁴ SC Code of Laws Title 55, Chapter 53

under SC law. It does not address other issues regarding hemp and consumer products generally.

EXECUTIVE SUMMARY

a. Δ8THC is a cannabinoid produced by hemp

Δ8THC is a cannabinoid of the tetrahydrocannabinol (THC) “family” of compounds commonly derived from the cannabis plant, including hemp as defined in the 2018 Farm Bill, which is synonymous with the term “industrial hemp” under the HFA. Δ8THC is a double bond isomer of delta-9 THC, a more well-known cannabinoid in the THC 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 Δ8THC and delta-9 THC, they differ with respect to the location of a double bond. Specifically, the THC molecule contains a structure called a “cyclohexane ring” composed of six carbon atoms arranged in a ring, each of which is bonded to two hydrogen atoms. All but one pair of the carbon atoms in the ring are linked by single covalent bonds. The remaining pair is linked by a double bond. The location of the double bond distinguishes Δ8THC from other isomers of THC, such as Δ9THC and Δ10THC, in which the double bond is on a different location in the cyclohexane ring.⁵

b. Δ8THC extracted from hemp is not a controlled substance under SC law

Despite their similarities, the structural difference between Δ8THC and Δ9THC makes a substantial difference in how they affect our bodies. It also affects their legal status. Δ8THC from hemp is not a controlled substance. This is because the HFA broadly legalized hemp, the definition of which specifically includes “the plant *Cannabis sativa L.* and any part of that plant, including the nonsterilized seeds thereof and all derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, with the federally defined THC level for hemp.” (*emphasis added*)⁶ Additionally, the HFA created a category of lawful “hemp products”, which it defines as

“all products with the federally defined THC level for hemp derived from, or made by, processing hemp plants or hemp plant parts, that are prepared in a form available for commercial sale, including, but not limited to, cosmetics, personal care products, food intended for animal or human consumption, cloth, cordage, fiber, fuel, paint, paper, particleboard, plastics, and any product containing one or more hemp-derived cannabinoids, such as cannabidiol.” (*emphasis added*)⁷

⁵ <https://sensiseeds.com/en/blog/cannabinoid-science-101-what-is-thc-tetrahydrocannabinol/#:~:text=The%20THC%20molecule%20contains%20a,bonded%20to%20two%20hydrogen%20atoms.&text=The%20position%20of%20this%20double,extent%20of%20its%20psychoactive%20effect.>

⁶ SC Code of Laws 46-55-10(8)

⁷ SC Code of Laws 46-55-10(9)

The “*federally defined THC level for hemp*” is currently 0.3% delta-9 THC on a dry weight basis.⁸ SC law governing hemp does not refer to Δ8THC, or otherwise define or limit any isomers or forms of THC other than delta-9.⁹ Lawful hemp and hemp products are distinguished from unlawful marijuana products solely by virtue of their concentrations of delta-9 THC.

Moreover, Δ8THC is not a controlled substance analogue under SC law¹⁰ for several reasons. First, it is exempt by virtue of the HFA when derived from hemp. Hemp, the definition of which includes its cannabinoids and derivatives, is exempt from the SC list of controlled substances. Additionally, and as discussed in greater detail, below, the effects of Δ8THC are not substantially similar to the effects of Δ9THC, a schedule 1 controlled substance under SC law except as set forth in the HFA. For these reasons, hemp derived Δ8THC is not a “controlled substance analogue” under SC law.

c. Δ8THC derived from CBD does not meet the definition of a “synthetic cannabinoid” under SC law

There is significant confusion regarding the legal status of Δ8THC produced from cannabidiol (CBD) extracted from hemp.¹¹ This confusion is primarily due to the chemical process used to derive Δ8THC from CBD. This process raises the question of whether the resulting Δ8THC is a “synthetic cannabinoid” or not. Fortunately, SC law is clear that Δ8THC is not a “synthetic cannabinoid”. SC Code of Laws 44-53-190(D)(24) defines “synthetic cannabinoids” as:

“Any material, compound, mixture, or preparation that is not listed as a controlled substance in Schedule I through V, is not an FDA-approved drug, and contains any quantity of the following substances, their salts, isomers (whether optical, positional, or geometric), homologues, and salts of isomers and homologues, unless specifically excepted, whenever the existence of these salts, isomers, homologues, and salts of isomers and homologues is possible within the specific chemical designation: (a) Naphthoylindoles, (b) Naphthylmethyloindoles, (c) Naphthoylpyrroles, (d) Naphthylmethyloindenes, (e) Phenylacetylindoles, (f) Cyclohexylphenols, (g) Benzoylindoles, (h) 2,3-Dihydro-5-methyl-3-(4-morpholinylmethyl)pyrrolo [1,2,3-de]-1,4-benzoxazin-6-yl]-1-naphthalenylmethanone (WIN 55,212-2), (i) 9-(hydroxymethyl)-6,6-dimethyl-1-(2-methyloctan-2-yl)-6a,7,10,10a-tetrahydrobenzo[c]chromen-1-ol 7370 (HU-210, HU-211), (j) Adamantoylindoles.”

⁸ 7 U.S. Code § 1639o

⁹ Note that the US Department of Agriculture requires preharvest hemp testing to include both delta-9 THC and THC-A in determining whether a plant is legally compliant. That regulation only applies to preharvested hemp and does not reference Δ8THC or any other forms of THC except delta-9 and THC-A. *Interim Final Rule (Rule) governing the Establishment of a Domestic Hemp Production Program, 84 FR 58522*

¹⁰ SC Code of Law 44-53-110(7)

¹¹ Unless otherwise stated, all references to CBD in this letter are to CBD that has been extracted from hemp.

Δ 8THC does not contain any of the aforementioned substances and is not a “synthetic cannabinoid” under SC law.

Finally, as a matter of statutory interpretation, when two laws appear to be in conflict on an issue and one of the laws is older and more general than the other, the more recent and specific law controls. Legally speaking, this is referred to as the doctrine of “*lex specialis*”, which means that “*the more specific controls over the general.*” In this case, the older and more general law is the SC statute governing controlled substances, which generally includes “THC”, on the list of controlled substances.¹² The more recent and specific law is the HFA, which expressly legalized “hemp”. Under the HFA, “hemp” includes its derivatives, among which is Δ 8THC. For this reason, hemp-derived Δ 8THC is lawful under SC law.

Δ 8THC FROM HEMP IS NOT A CONTROLLED SUBSTANCE

Hemp initially became lawful in SC, and removed from the list of controlled substances, by virtue of the HFA¹³. It 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 HFA defines hemp as follows:

“the plant Cannabis sativa L. and any part of that plant, including the nonsterilized seeds thereof and all derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, with the federally defined THC level for hemp.” (emphasis added)¹⁴

The HFA treats hemp as an agricultural commodity, putting it on par with wheat, grain, and soy.¹⁵ Hemp is not a controlled substance under SC law. Importantly, under the HFA hemp-derived “cannabinoids”, “derivatives”, “extracts”, “isomers”, etcetera are themselves “hemp” and thus not controlled substances. Δ 8THC and other minor cannabinoids found in hemp are “cannabinoids”. They are not controlled substances when derived from hemp, regardless of their concentrations.

During our conversation on June 25, 2021 you put forth the following hypothetical question, which I have paraphrased:

“If the SC General Assembly intended to legalize Δ 8THC, then it seems it would have been more express in doing so. Since delta-9 THC was the only THC cannabinoid that was identified in the HFA, do all other forms of THC remain controlled substances?”

¹² SC Code of Laws 44-53-190(D)(18)

¹³ SC Code of Laws Title 46, Chapter 55

¹⁴ SC Code of Laws 46-55-10(8)

¹⁵ “Hemp shall be considered an agricultural commodity.” SC Code of Laws 46-55-10(8)

The answer is “no”. Rather than creating a long list of the forms of THC that were removed from the list of controlled substances upon legalization of hemp (there are at least 30 THC isomers), the SC General Assembly broadly legalized them all, except for identifying the one form of hemp-derived THC on which to impose restrictions, namely delta-9 THC, which is restricted to concentrations that do not exceed 0.3%. The definition of lawful “hemp” in the HFA includes “*all... cannabinoids... derivatives*” of hemp with delta-9 THC levels that do not exceed 0.3%. By the plain language of the statute, all other forms of THC are expressly lawful in any concentrations. To put it another way, the SC General Assembly easily could have placed broad restrictions on THC generally by simply using the inclusive term “tetrahydrocannabinols” (or “THC”) in defining “hemp” under the HFA. Rather, it chose to identify, specify, and carve out only one form of THC, namely delta-9 THC, which remains a controlled substance in concentrations that exceed 0.3%. All other forms of THC, including Δ8THC, fall within the definition of “hemp” (and “hemp products”) to the extent they are hemp “cannabinoids”, “extracts”, “derivatives”, “isomers”, etc. They are not controlled substances.

Δ8THC DERIVED FROM CBD IS NOT A CONTROLLED SUBSTANCE

It is clear that Δ8THC which is naturally expressed in, and extracted from, the hemp plant is not a controlled substance. Currently, most Δ8THC on the market in SC is a derivative of 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 CBD¹⁶ is not a controlled substance.

As discussed above, under the HFA definition of “hemp”, cannabinoids from hemp are the same thing as “hemp”. This includes CBD extracted from hemp, which falls within the definition of “hemp” under the HFA. The statute does not distinguish between a hemp plant and its cannabinoids, extracts, derivatives, etcetera. In fact, the statutory definition of “hemp” uses the phrase “*whether growing or not*” and a list of things that are included, such as “cannabinoids”, “extracts”, and “derivatives”, to underscore the fact that “hemp” means more than simply the plant. From a legal standpoint, all of these things are lawful “hemp”. A derivative of CBD is by definition a derivative of hemp and is thus not a controlled substance. A fundamental legal question is whether or not Δ8THC produced from CBD is a “derivative” of CBD. If so, then it meets the HFA’s definition of “hemp”. For the reasons discussed below, the answer to this question is “yes”. Δ8THC produced from CBD is a “derivative” of CBD and is thus lawful “hemp”.

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 or group of atoms.*”*(emphasis added)*¹⁷ Wikipedia defines a chemical derivative as “*a compound that is derived from a similar compound by a chemical reaction.*”¹⁸

¹⁶ CBD is one of the most abundant cannabinoids in cannabis and can be extracted from either a marijuana or a hemp plant. In this statement, all references to CBD are to CBD from hemp.

¹⁷ <https://www.chemicool.com/definition/derivative.html>

¹⁸ [https://en.wikipedia.org/wiki/Derivative_\(chemistry\)](https://en.wikipedia.org/wiki/Derivative_(chemistry))

All of the standard operating procedures (SOP) we have reviewed for deriving Δ 8THC from CBD describe a chemical reaction initiated by a catalyst in which the CBD is converted to Δ 8THC and other minor cannabinoids and compounds. In fact, the US government holds a patent for converting CBD to Δ 8THC.¹⁹ 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 laboratories²⁰, all unanimously agreed that Δ 8THC does not degrade, oxidize, or otherwise convert to Δ 9THC by the mere application of heat. In fact, it appears that Δ 8THC is more stable than Δ 9THC²¹, which degrades over time into a different cannabinoid, cannabinol (CBN).

Based on most commonly used processes for producing Δ 8THC from CBD, including a US government patented SOP, Δ 8THC “*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, Δ 8THC is a “derivative” of CBD under the above definitions.

Since the statutory definition of “hemp” includes CBD, of which Δ 8THC is a derivative, Δ 8THC falls within the statutory definition of hemp and is not a controlled substance. This conclusion follows the general rule, adopted in the HFA, 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 known in the hemp industry as the “Source Rule”.²²

Δ 8THC FROM HEMP IS NOT A CONTROLLED SUBSTANCE ANALOGUE

Δ 8THC from hemp is not a controlled substance analogue under SC law²³ due to the fact that it is exempt by virtue of the HFA when derived from hemp. Additionally, the effects of Δ 8THC are not substantially similar to the effects of Δ 9THC, a controlled substance under SC law except as set forth in the HFA.

¹⁹ “Conversion of cbd to delta8-thc and delta9-thc”, US Patent No. US20040143126A1.
<https://patents.google.com/patent/US20040143126A1/en>

²⁰ The names of these four scientists are not included in this position statement, nor are their individual responses. This is because our inquiry regarding this particular issue was general in nature and none of the scientists were made aware of this position statement or any facts whatsoever about the basis for our inquiry. They responded in good faith as friends and professionals in the industry 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?*”

²¹ Abrahamov, Aya; Abrahamov, Avraham; Mechoulam, R. (1995). “An efficient new cannabinoid antiemetic in pediatric oncology”. *Life Sciences*. 56 (23–24): 2097–2102. doi:10.1016/0024-3205(95)00194-b. ISSN 0024-3205. PMID 7776837.

²² 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?q=4ca075a2-599c-401f-a069-ba5cda71b721>;
<https://www.forbes.com/sites/roberthoban/2020/06/24/cbd-has-never-been-a-controlled-substance/?sh=1af03d594569>

²³ SC Code of Law 44-53-110(7)

SC law provides that “a substance that is intended for human consumption and that either has a chemical structure substantially similar to that of a controlled substance in Schedules I, II, or III or has a stimulant, depressant, analgesic, or hallucinogenic effect on the central nervous system that is substantially similar to that of a controlled substance in Schedules I, II, or III” is a controlled substance analogue.²⁴

There are several reasons that hemp-derived Δ 8THC is not a controlled substance under SC law. First, the HFA expressly provides that hemp “cannabinoids”, “extracts”, “derivatives”, “isomers”, etc. and are not controlled substances.²⁵ This specificity in the HFA as to THC in hemp overrides any contrary general provisions regarding controlled substance analogues. (See, eg, discussion of *lex specialis*, above.) Second, the effect that Δ 8THC has on the CNS is not substantially similar to the effects of Δ 9THC, a Schedule 1 controlled substance except as set forth in the HFA. Its effects are up to ten (10) times less potent.²⁶ Third, hemp has been removed from the SC list of controlled substances. As discussed above, hemp-derived Δ 8THC meets the legal definition of “hemp” under the HFA. Legally speaking, it is “hemp” and is not a controlled substance. For these reasons, Δ 8THC from hemp is not a controlled substance analogue under SC law.

Δ 8THC FROM CBD IS NOT A SYNTHETIC CANNABINOID UNDER SC LAW

There is significant confusion regarding the legal status of Δ 8THC produced from cannabidiol (CBD) extracted from hemp.²⁷ This confusion is primarily due to the chemical process used to derive Δ 8THC from CBD. This process raises the question of whether the resulting Δ 8THC is “synthetic” or not. Fortunately, SC law is clear that Δ 8THC is not a “synthetic cannabinoid”. SC Code of Laws 44-53-190(D)(24) defines “synthetic cannabinoids” as:

“Any material, compound, mixture, or preparation that is not listed as a controlled substance in Schedule I through V, is not an FDA-approved drug, and contains any quantity of the following substances, their salts, isomers (whether optical, positional, or geometric), homologues, and salts of isomers and homologues, unless specifically excepted, whenever the existence of these salts, isomers, homologues, and salts of isomers and homologues is possible within the specific chemical designation: (a) Naphthoylindoles, (b) Naphthylmethylinindoles, (c) Naphthoylpyrroles, (d) Naphthylmethylindenes, (e) Phenylacetylinindoles, (f) Cyclohexylphenols, (g) Benzoylindoles, (h) 2,3-Dihydro-5-methyl-3-(4-morpholinylmethyl)pyrrolo [1,2,3-de]-1,

²⁴ Ibid.

²⁵ SC Code of Laws 46-55-10(8)

²⁶ See, eg, Ibid. FN 22, which asserts that Δ 8THC “is generally considered to be 50% less potent than Δ 9-THC and has been shown in some cases to be 3-10 times less potent.” See also, “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 Δ 8THC relative to Δ 9THC is two-thirds (2/3).

²⁷ Unless otherwise stated, all references to CBD in this letter are to CBD that has been extracted from hemp.

4-benzoxazin-6-yl]-1-naphthalenylmethanone (WIN 55,212-2), (i) 9-(hydroxymethyl)-6,6-dimethyl 1-3-(2-methyloctan-2-yl)-6a,7,10,10a-tetrahydrobenzo[c]chromen-1-ol 7370 (HU-210, HU-211), (j) Adamantoylindoles.”

Δ 8THC does not contain any of the aforementioned substances and is not a “synthetic cannabinoid” under SC law.

Additionally, and hypothetically speaking, even if Δ 8THC from CBD were to meet the definition of a “synthetic cannabinoid”, it is not a controlled substance under SC law. In other words, with respect to the legal status of Δ 8THC under SC law, it does not matter if hemp-derived Δ 8THC is deemed to be “synthetic” or not. Either way, it is not a controlled substance. Neither the HFA, nor any other SC statute, defines what is meant by a hemp “derivative”. Absent a statutory definition, it is reasonable to rely on the definition that is commonly used in the context in which the term appears. In this context, the term “derivative” arises in the HFA’s definition of “hemp”. Specifically, the HFA uses the term “derivative” in a scientific context and so a scientific definition is most appropriate. The Chemicool Dictionary defines “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 or group of atoms.” (emphasis added)

Importantly, the definition actually includes the term “*synthesis*”. Additionally, the process that is described in the Chemicool definition is exactly what happens when hemp-derived CBD is *isomerized* (another HFA term) and becomes Δ 8THC. When viewed in this light, it is clear that the HFA both anticipated and expressly includes hemp derivatives, such as Δ 8THC, within the definition of “hemp”.


This leads to the final point on this issue, which is that the HFA, which removed hemp from the list of controlled substances, controls with respect to the legal status of Δ 8THC. When two laws appear to be in conflict on an issue and one of the laws is both older and more general than the other, the more recent and specific law will control. As discussed above, this maxim is called “*lex specialis*”, which means that “*the more specific controls over the general.*”²⁸ In this situation, the older and more general law is the SC controlled substance law, which generically includes “THC” and “synthetic cannabinoids” on the list of controlled substances. The more recent and specific law is the HFA, which expressly exempts “hemp” from the list of controlled substances. Under the HFA, “hemp” includes its derivatives, among which is Δ 8THC. Therefore, even if Δ 8THC from CBD were to be deemed a “synthetic cannabinoid”, it would not be a controlled substance under SC law.

CONCLUSION

²⁸ See, eg. United Ref. Co. Incentive Sav. Plan v. Morrison, 2013 U.S. Dist. LEXIS 166186, *11, 2013 WL 6147672

The cannabinoid $\Delta 8$ THC is not a controlled substance under the SC law when it is from hemp, including when it is derived from CBD. This is because the definition of hemp under the HFA, which has been removed from the list of controlled substances in SC, includes “cannabinoids” and “derivatives”. Additionally, $\Delta 8$ THC from hemp is not a controlled substance analogue under SC law because $\Delta 8$ 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 HFA. $\Delta 8$ THC derived from CBD is plainly not a “synthetic cannabinoid” under SC law. However, even if it was deemed to be a “synthetic cannabinoid”, $\Delta 8$ THC is not a controlled substance since hemp derivatives are exempt from the list of controlled substances under SC law and a derivative is, by definition, a synthetic compound.

Sincerely,



Rod Kight
Attorney