



**U. S. Department of Justice**  
Drug Enforcement Administration  
8701 Morrissette Drive  
Springfield, Virginia 22152

[www.dea.gov](http://www.dea.gov)

June 9, 2023

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Dear [REDACTED]

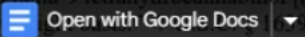
This is in response to your email dated April 18, 2023, in which you request the control status of delta-8-tetrahydrocannabinol (delta-8-THC), hexahydrocannabinol (HHC), delta-9-tetrahydrocannabinol (or as its is referred to in your original email, THC-hexyl; CAS number 36482-24-3), delta-9-tetrahydrocannabinolic acid (THCA) and hydrogenated CBD (H4-CBD; this was incorrectly identified as CAS 6692-85-9 in your email. We have evaluated CAS 4460-20-2 instead) under the Controlled Substances Act (CSA).

Delta-8-THC and THC-hexyl are tetrahydrocannabinol substances contained in the plant *Cannabis sativa L.* and also can be produced synthetically from non-cannabis materials. The CSA classifies tetrahydrocannabinols as controlled in schedule I. 21 U.S.C. § 812, Schedule I(c)(17); 21 CFR § 1308.11(d)(31). Subject to limited exceptions, for the purposes of the CSA, the term “tetrahydrocannabinols” means those “naturally contained in a plant of the genus *Cannabis* (cannabis plant), as well as synthetic equivalents of the substances contained in the cannabis plant and/or synthetic substances, derivatives, and their isomers with similar chemical structure and pharmacological activity to those substances contained in the plant.” 21 CFR § 1308.11(d)(31). Thus, delta-8-THC and THC-hexyl synthetically produced from non-cannabis materials are controlled under the CSA as “tetrahydrocannabinols.”

The CSA, however, excludes “tetrahydrocannabinols in hemp (as defined under section 1639o of Title 7)” from the definition of marihuana and from the listing of tetrahydrocannabinols in Schedule I. Hemp, in turn, is defined as “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 [(delta-9-THC)] concentration of not more than 0.3 percent on a dry weight basis.” 7 U.S.C. § 1639o(1).

Accordingly, cannabinoids that are extracted from the cannabis plant and that have a delta-9-THC concentration of not more than 0.3 percent on a dry weight basis meet the definition of “hemp.” However, naturally derived cannabinoids having a delta-9-THC concentration more than 0.3 percent on a dry weight basis do fall within the CSA schedule I listings of marihuana and tetrahydrocannabinols.<sup>1</sup>

whether growing or not, with a delta-9-tetrahydrocannabinol [(delta-9-THC)] concentration of not more than 0.3 percent on a dry weight basis (1).



Accordingly, cannabinoids that are extracted from the cannabis plant and that have a delta-9-THC concentration of not more than 0.3 percent on a dry weight basis meet the definition of “hemp.” However, naturally derived cannabinoids having a delta-9-THC concentration more than 0.3 percent on a dry weight basis do fall within the CSA schedule I listings of marijuana and tetrahydrocannabinols.<sup>1</sup>

<sup>1</sup> The Agricultural Improvement Act of 2018 (AIA), Pub. L. 115-334 § 12619, amended the CSA to remove



In regards to delta-9-THCA, Congress has directed that, when determining whether a substance constitutes hemp, delta-9-THC concentration is to be tested “using post-decarboxylation or other similarly reliable methods.” 7 U.S.C. § 1639p(a)(2)(A)(ii); 7 U.S.C. § 1639q(a)(2)(B). The “decarboxylation” process converts delta-9-THCA to delta-9-THC. Thus, for the purposes of enforcing the hemp definition, the delta-9-THC level must account for any delta-9-THCA in a substance.

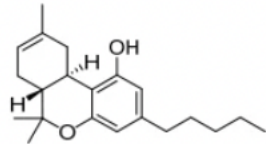
Accordingly, cannabis-derived delta-9-THCA does not meet the definition of hemp under the CSA because upon conversion for identification purposes as required by Congress, it is equivalent to delta-9-THC. DEA assigns the Controlled Substances Code Number (CSCN) 7370 to delta-9-THCA, which is that of tetrahydrocannabinols, and the conversion factor (CF) is 1.00.

HHC does not occur naturally in the cannabis plant and can only be obtained synthetically, and therefore does not fall under the definition of hemp. HHC is a tetrahydrocannabinol having similar chemical structure and pharmacological activity to those contained in the cannabis plant. Thus, HHC meets the definition of “tetrahydrocannabinols” and is (and products containing HHC) controlled in schedule I by 21 U.S.C. § 812(c) Schedule I, and 21 CFR § 1308.11(d). The CSCN assigned to this substance is 7370, which is that of tetrahydrocannabinols, and the CF is 1.00.

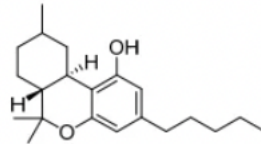
H4-CBD is a cannabinoid that is a synthetically produced cannabinoid. Whether a cannabinoid product synthetically produced from non-cannabis materials is controlled depends on whether that product contains “any quantity” of a synthetically produced tetrahydrocannabinol. See 21 U.S.C. 812, Schedule I(c)(17); 21 CFR 1308.11(d)(31); see also Implementation of the Agriculture Improvement Act of 2018, 85 FR 51639 (2020).

If the product contains any quantity of synthetically produced tetrahydrocannabinol, it is controlled in schedule I of the CSA, unless it is specifically excepted or listed in another schedule (e.g., Marinol in schedule III under 21 CFR 1308.13(g)(1)). If the product does not contain any quantity of synthetically produced tetrahydrocannabinol (or any other controlled substance), it is not controlled under the CSA. If a synthetically produced cannabinoid product contains any synthetic tetrahydrocannabinols, it is assigned CSCN 7370 and has a CF of 1.00.

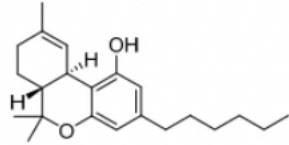
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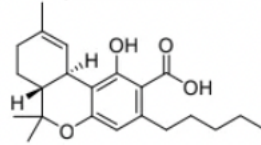
delta-8-tetrahydrocannabinol



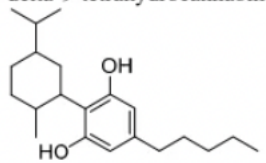
hexahydrocannabinol



delta-9-tetrahydrocannabinol

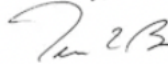


delta-9-tetrahydrocannabinolic acid



hydrogenated CBD

Sincerely,



Terrence L. Boos, Ph.D., Chief  
Drug & Chemical Evaluation Section  
Diversion Control Division

Cc: [Redacted]