

Delay in Changes to Hemp Definition: Cannabinoids Not Capable of Being Naturally Produced by the Cannabis Plant

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Under federal law, cannabis and its derivatives are classified as either *marijuana* or *hemp*. [Marijuana](#) is subject to regulation under the federal [Controlled Substances Act](#) (CSA), while hemp is not a controlled substance. The CSA also separately regulates tetrahydrocannabinols (THC), other than “[THC] in hemp.” While hemp and THC in hemp are not controlled substances, they may be regulated by other provisions of federal law, such as agricultural laws and the federal [Food, Drug, and Cosmetic Act](#).

In November 2025, a provision of the Continuing Appropriations, Agriculture, Legislative Branch, Military Construction and Veterans Affairs, and Extensions Act, 2026 ([Pub. L. No. 119-37](#)) (Hemp Definition Amendment) amended the definition of hemp to expressly exclude certain substances and include other hemp-derived products. The new hemp definition was originally scheduled to go into effect on November 12, 2026, but a provision of the Continuing Appropriations and Extensions Act, 2027 ([Pub. L. No. 119-103](#)) (Delay Amendment) delayed the effective date for most of the amendments to the hemp definition until December 11, 2026. The Delay Amendment allows certain provisions of the new hemp definition to go into effect as planned on November 12, 2026—the provisions excluding products containing cannabinoids that are not capable of being naturally produced by the cannabis plant. This Legal Sidebar provides background on the federal regulation of hemp and marijuana and an overview of the new hemp definition. It then discusses the legal status of cannabinoids that are not capable of being naturally produced by the cannabis plant. Finally, it concludes with some considerations for Congress.

Background

The plant *cannabis sativa* and its derivatives are used for a variety of medical, recreational, and industrial purposes. Certain compounds found in cannabis or related to compounds in cannabis, known as [cannabinoids](#), may have physiological or psychoactive effects. The most well-known types of [cannabinoids](#) are THC and cannabidiol (CBD). CBD is not intoxicating, while THC is psychoactive and produces the “high” associated with marijuana. There are multiple types of THC. Delta-9 THC is the primary psychoactive cannabinoid found in the cannabis plant. Other forms of THC [include](#) delta-8 THC, delta-10 THC, and THC acetate ester (THC-O). Some types of THC occur naturally in the cannabis plant,

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while others do not. The [chemical processes](#) required to isolate or produce sufficient quantities of THC to use vary depending on the type of THC. For instance, [THC-O](#) does not occur naturally in cannabis and is produced from the plant by converting cannabis-derived CBD to delta-8 THC, then adding acetic anhydride. Although different varieties of the cannabis plant have different primary uses, [cannabis](#) has long been used for its psychoactive effects by smoking or otherwise ingesting the plant or its derivatives, while the plant's [stalks and fibers](#) are used in a range of products including textiles, spun fibers, paper, and construction and insulation materials. Increasingly, [entities](#) are extracting specific cannabinoids and isolating or chemically manipulating them to introduce them into a wide array of consumer products. Some of these products are non-intoxicating products like CBD oil, while [others](#) may have intoxicating effects.

Under federal law, cannabis and its derivatives generally fall into one of two categories: *marijuana* or *hemp*. Currently, unless an exception applies, cannabis and its derivatives are [legally classified](#) as marijuana, which is a controlled substance under the federal CSA. Beginning when Congress enacted the CSA in 1970, marijuana was classified as a Schedule I controlled substance, meaning it was [subject](#) to the most stringent CSA restrictions and could not legally be used for medical or recreational purposes. In April 2026, the U.S. Department of Justice (DOJ) issued a [final order](#) moving marijuana and its derivatives to Schedule III to the extent they are “included in an FDA-approved drug product or are subject to a state-issued license to manufacture, distribute, and/or dispense marijuana or products containing marijuana for medical purposes” (state-legal medical marijuana). The rescheduling of state-legal medical marijuana may allow marijuana to be used for [medical purposes](#) consistent with the CSA. DOJ is also considering whether to move all marijuana to Schedule III but, for the time being, marijuana other than state-regulated medical marijuana remains in Schedule I. Both Schedule I and Schedule III status impose [regulatory requirements](#) for legal activities involving marijuana, and unauthorized activities are subject to significant [criminal penalties](#).

One key exception to the general classification of cannabis as marijuana applies to cannabis that fits the legal definition of hemp. The 2018 farm bill [defined](#) *hemp* as any part of the cannabis plant or its derivatives containing no more than 0.3% delta-9 THC and excluded hemp from the definition of marijuana under the CSA. Thus, after enactment of the 2018 farm bill, hemp is no longer a controlled substance under the CSA.

THC is separately [classified](#) as a Schedule I controlled substance under the CSA, unless an exception applies. CSA control of THC includes THC that naturally occurs in the plant and synthetic equivalents of those substances, as well as their derivatives and isomers. The 2018 farm bill amended the [statute](#) controlling THC in Schedule I to exclude “[THC] in hemp.” This amendment excludes substances that meet the definition of hemp implemented by the 2018 farm bill from the classification of THC as a Schedule I controlled substance.

Following enactment of the 2018 farm bill, some participants in the cannabis industry [began](#) producing products that contain less than 0.3% delta-9 THC but have a *total* THC concentration that exceeds 0.3%. As a result of the total THC concentration, these products may be intoxicating to the user. Due to the low delta-9 THC concentration, however, these products may legally qualify as hemp and be exempt from CSA restrictions that apply to marijuana and THC. Critics of the proliferation of these THC products [dubbed](#) this interpretation of the 2018 farm bill the “THC loophole.”

The New Hemp Definition

In November 2025, Congress enacted and the President signed the [Hemp Definition Amendment](#), which amended the definition of [hemp](#) from the 2018 farm bill. The new definition of hemp includes cannabis and its derivatives “with a total [THC] concentration” of not more than 0.3%. The amendment addresses the so-called “THC loophole” because the threshold concentration in the new definition is based on total

THC concentration (including delta-8 THC, delta-10 THC, and THC-O), rather than only on the concentration of delta-9 THC.

The amended hemp definition expressly includes “industrial hemp” grown for purposes of producing non-cannabinoid products including stalks, fibers, whole grains, oils, and edible greens. It also enumerates certain exclusions from the definition of hemp:

- viable seeds from a cannabis plant if the plant exceeds a total THC concentration of 0.3%;
- hemp-derived cannabinoid products containing cannabinoids that are not capable of being naturally produced by the cannabis plant;
- hemp-derived cannabinoid products containing cannabinoids that are capable of being naturally produced by a cannabis plant and were synthesized or manufactured outside the plant;
- intermediate hemp-derived products containing more than 0.3% total THC and other cannabinoids that have similar effects as a [THC]; and
- final hemp-derived products with greater than 0.4 milligrams combined total per container of total THC and other cannabinoids that have similar effects as a [THC].

The Hemp Definition Amendment defines *intermediate hemp-derived cannabinoid product* in part as a hemp-derived cannabinoid product that “is not yet in the final form” intended to be used or consumed by humans or animals. It does not separately define *final hemp-derived cannabinoid product*, but the phrase appears to refer to hemp-derived cannabinoid products in the final form intended to be used by humans or animals.

The Hemp Definition Amendment also directs the U.S. Food and Drug Administration (FDA), within 90 days of enactment, to publish lists of

- all cannabinoids known to FDA that can be naturally produced by a cannabis plant;
- all THC class cannabinoids known to the agency to occur naturally in the plant;
- all other known cannabinoids with similar effects to, or marketed to have similar effects to, THC class cannabinoids; and
- “additional information and specificity” about the term “container.”

As of the date of the publication of this Legal Sidebar, FDA has not published any of these items.

The Hemp Definition Amendment originally provided that the amendment was to take effect one year from the date of enactment, on November 12, 2026. In September 2026, Congress enacted the [Delay Amendment](#), which delayed the effective date for most of the amendments to the hemp definition until December 11, 2026. [Certain provisions](#) regarding the exclusion for hemp-derived cannabinoid products containing cannabinoids that are not capable of being naturally produced by the cannabis plant remain set to go into effect on November 12, 2026. On that date, hemp-derived cannabinoid products containing cannabinoids not capable of being naturally produced by the cannabis plant will not be classified as hemp, and will be treated as controlled substances to the extent they fall within the CSA’s definition of marijuana or THC.

Legal Status of Cannabinoids That Do Not Naturally Occur in Cannabis

Hemp-derived cannabis products containing cannabinoids that are not capable of being naturally produced by the cannabis plant are the subject of two contradictory conclusions regarding their legal status: the U.S. Drug Enforcement Administration’s (DEA’s) interpretation of the 2018 farm bill’s hemp definition, which appears to categorize cannabinoids that do not naturally occur in the cannabis plant as

controlled substances; and an appeals court opinion, *Anderson v. Diamondback Investment Group*, which categorized certain cannabinoids that do not naturally occur in cannabis as hemp, and not controlled substances.

DEA Interpretation of the 2018 Farm Bill's Hemp Provision

On August 20, 2020, DEA issued an [interim final rule](#) to explain how the 2018 farm bill's descheduling of hemp affected the Schedule I status of THC. The interim final rule [states](#) that the 2018 farm bill "limits the control" of THC that is "naturally occurring" in hemp. According to DEA, the 2018 farm bill "does not impact the control status of synthetically derived [THC] because the statutory definition of 'hemp' is limited to materials that are derived" from the cannabis plant. For products with "synthetically derived" THC, the amount of delta-9 THC "is not a determining factor in whether the material is a controlled substance" because "[a]ll synthetically derived [THCs] remain schedule I controlled substances."

In an [opinion letter](#) issued on February 13, 2023, DEA addressed the status of THC-O. In the letter, DEA [opined](#) that THC-O—a compound that does not occur naturally in the cannabis plant—is a Schedule I controlled substance because it "can only be obtained synthetically, and therefore [does] not fall under the definition of hemp." The 2023 letter focused on whether or not the cannabinoid naturally occurs in cannabis, rather than whether or not the cannabinoid was derived from cannabis materials.

Anderson v. Diamondback Investment Group

On September 4, 2024, the U.S. Court of Appeals for the Fourth Circuit (Fourth Circuit) issued an [opinion](#) in *Anderson v. Diamondback Investment Group* that contradicts DEA's 2023 opinion letter on THC-O by holding that products containing THC-O were hemp.

In *Anderson*, the defendant employer [fired](#) the plaintiff from her job for failing two drug tests. The plaintiff [claimed](#), among other things, that her firing violated a North Carolina law that prohibited an employer from terminating an employee for engaging "in the lawful use of lawful products." The Fourth Circuit [considered](#) whether the products that the plaintiff consumed—which included CBD oil, delta-8 THC, delta-10 THC, and THC-O—were legally hemp, and therefore not subject to the CSA, under the 2018 farm bill. The Fourth Circuit [held](#) that the 2018 farm bill definition unambiguously establishes that "hemp" includes "all" cannabinoids, and derivatives and extracts of cannabis, so long as they do not cross the 0.3% delta-9 THC threshold. According to the court, whether a substance is considered hemp does not depend on how it was manufactured but rather whether it comes from cannabis. The court also [noted](#) that, in light of the U.S. Supreme Court's decision in *Loper Bright v. Raimondo* overturning the *Chevron doctrine*, it would not need to defer to DEA's interpretation even if the court had determined that the statutory definition was ambiguous. In coming to this conclusion, the court [relied](#) on *AK Futures v. Boyd Street Distro*, in which the U.S. Court of Appeals for the Ninth Circuit opined that products containing Delta-8 THC (which, unlike THC-O, does naturally occur in hemp) were hemp because the cannabinoid was derived from the cannabis plant. According to the [Fourth Circuit](#), a product containing THC-O that was derived from cannabis is hemp under the 2018 farm bill's definition so long as it does not contain more than 0.3% delta-9 THC. Synthetic cannabinoids, the court [opined](#), were "compounds manufactured entirely out of synthetic materials."

Considerations for Congress

To the extent the Hemp Definition Amendment goes into effect, it will amend the definition of hemp to exclude certain products, meaning that some additional products containing THC will be subject to control under the CSA by the DEA. In response, [some hemp industry groups](#) have expressed opposition to the definitional changes, preferring regulation of hemp-derived consumer products through agencies like FDA. These stakeholders have [generally supported](#) delaying the effective date for the new hemp

definition to extend the time for Congress to decide whether to pass a separate regulatory framework for hemp products. Other stakeholders, including [several state attorneys general](#), have opposed the delay in the effective date of the new hemp definition, citing the need to protect consumers.

The Delay Amendment did not change the effective date excluding from the hemp definition products containing cannabinoids that are not capable of being naturally produced by the cannabis plant. This provision will categorize certain products that contain cannabinoids that are derived from hemp but do not naturally occur in hemp, such as THC-O, as controlled substances under the CSA. Congress may consider further delaying the effective date of any or all parts of the new hemp definition. Some Members of Congress have introduced legislation that would delay the effective date of the new definition of hemp for an additional two years ([H.R. 7024](#), [H.R. 7010](#), [S. 3686](#)) or repeal the changes to the definition ([H.R. 6209](#)). Congress may also allow the new hemp definition to take effect.

To the extent hemp-derived cannabinoid products are classified as marijuana, any change to CSA regulation of marijuana would also apply to those products. As noted, in April 2026, DOJ moved state-legal medical marijuana to Schedule III, and the agency is currently considering whether to reschedule the substance entirely. As of the date of this Legal Sidebar, marijuana other than state-legal medical marijuana remains in Schedule I. Congress has broad authority to [change the status of a controlled substance](#) through legislation and could change the status of marijuana before or after DEA makes any final scheduling decision. Congress could choose to act with respect to marijuana generally or with respect to hemp-derived cannabinoid products in particular. For more legal considerations related to the implementation of the new federal definition of hemp, see CRS Legal Sidebar LSB11381, *Changes to the Federal Definition of Hemp: Legal Considerations Under the Controlled Substances Act*, by Joanna R. Lampe (2025).

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