By Kathleen Sanzo, Esq.

The ABCs of CBD

The current state of cannabidiol regulations and testing methods

On December 20, 2018, President Donald Trump signed the Agriculture Improvement Act of 2018 (Farm Bill),[1] which, in part, removed hemp and hemp-derived products, including cannabinoids, with less than 0.3 percent tetrahydrocannabinol (THC) from the definition of marijuana in the Controlled Substances Act (CSA). The Farm Bill was an effort to provide a pathway for the sale of cannabidiol (CBD)-containing products in the United States, but, at best, the pathway has become a long and winding road filled with potholes and "road under construction" signs. Although the legislation removed CBD from being a controlled substance, it did not address the status of CBD under the Federal Food, Drug, and Cosmetic Act of 1938 (FD&C Act), it did not deem the substance to be safe, and it did not preempt states from enacting laws to prohibit the sale of CBD-containing products. Therefore, there will be several more years of legal wrangling around this ingredient before its legal status is clearly delineated.

What the Farm Bill Did Do

Prior to the Farm Bill, legal hemp production in the United States was restricted to agricultural research and pilot programs in authorized states, such as Kentucky. The CSA regulated both hemp and marijuana, which are the same species of plant, *Cannabis sativa* L., as controlled substances, unless the part of the hemp plant used to produce the hemp byproduct was the mature stalks, oil, or cake made from the plant seeds [21 U.S.C. Section 802(16)]. Hemp-based products such as textiles, papers, and body-care items that were produced from hemp stalks could be sold. Any other products made from hemp were Schedule 1 controlled substances and prohibited for sale under federal and state laws.

The Farm Bill defines hemp as the plant *C. 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 Δ-9 THC concentration of not more than 0.3 percent on a dry weight basis [Section 297(a)(1)]. The law also excludes hemp from the definition of a controlled substance. The Farm Bill also allows the U.S. Department of Agriculture (USDA) to transfer to states and Native American tribes the primary jurisdiction over hemp production in their states and reservations as long as they submit a hemp management plan that is approved by the U.S. secretary of agriculture. States that choose to regulate hemp production will need to track where hemp is produced, develop a method for testing the THC concentration of hemp in the plant, and have procedures for destroying hemp that is produced with a THC concentration of more than 0.3 percent, as well as license hemp producers. States can also choose to have more stringent requirements than those in the Farm Bill. Hemp growers in states and tribal jurisdictions that do not submit a plan will be subject to a comparable plan established by USDA.

What the Farm Bill Did Not Do

While the removal of hemp and cannabinoids from the CSA addressed the most immediate issues around the sale of the substance, the legislation specifically did not affect or modify the status of CBD under the FD&C Act. Rather, the law specifically reserved the authority of the U.S. Food and Drug Administration (FDA) to regulate CBD like any other product under the FD&C Act. FDA wasted no time in proclaim-

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ing its position on CBD–stating that it is an active pharmaceutical ingredient that can only be marketed as a new drug subject to an approved New Drug Application.[2] Although multiple senators have communicated to FDA that Congress intended through the Farm Bill to allow the sale of CBD,[3] FDA has not yet modified its position. Prior to the departure of FDA Commissioner Dr. Scott Gottlieb, he testified to Congress that although FDA could engage in rulemaking to resolve the controversy around the status of CBD, it would be faster and easier for Congress to modify the law.

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Why Is CBD So Vexing an Ingredient for FDA?

Although FDA has concerns about the safety of CBD and whether there is adequate scientific literature about a safe dose, FDA's most challenging issue around CBD is a legal one. When the Dietary Supplement Health and Education Act was passed in 1994, one of the political trade-offs negotiated for its passage to allow more dietary supplements onto the market was that ingredients that had been first investigated and/or approved as drugs could not be dietary supplements–they could only be marketed as drugs. "Once a drug, always a drug" was the concept. Consequently, the definition of "dietary supplement" excludes products that have been "authorized for investigation as a new drug for which substantial clinical investigations have been instituted and made public" [21 U.S.C. Section 201(ff)(3)(a)-(B)]. FDA has exercised its authority under this provision a handful of times, including with regard to red yeast rice and pyridoxamine, concluding that the ingredients could not be dietary ingredients, as they had already been investigated publicly as investigational drug products.[4]

With regard to CBD, FDA's legal hands are tied, as in June 2018, FDA approved a CBD-based product, Epidiolex (0.1%) THC by GW Pharma, for the treatment of seizures associated with Lennox-Gastaut and Dravet syndromes in pediatric patients. Therefore, FDA could not approve the use of CBD in a dietary supplement. Although requested, FDA has thus far chosen not to distinguish the active ingredient approved in Epidiolex and other CBD ingredients based on dose or concentration, route of administration, or full spectrum versus concentrate/extract. Although there are asserted legal arguments that full-spectrum CBD extract and lower doses of CBD extract are not the ingredients approved in Epidiolex, and therefore these products do not violate the FD&C Act, FDA has never stated that it considers these distinctions a valid basis on which to market CBD products. Rather, FDA has consistently stated in Warning Letters against CBD products making drug claims that the products are unapproved new drugs.[5] Therefore, there is no current legal basis on which CBD products can be marketed as dietary supplements.

Amid Conflict, a Call to Standardize Testing Methodologies

Due to the legal controversies around CBD, FDA held a 10-hour public stakeholder meeting in April to solicit views on scientific and legal issues around CBD products. FDA heard more than 100 stakeholders discuss issues from the asserted effectiveness of CBD for a large number of medical conditions to the need for standardization of ingredient specifications and testing methodologies to concerns about product in the market and its potential adverse health effects. In particular, several organizations that had already tested product available in the market testified that samples had included a substantial array of contaminants, including heavy metals and pesticides, as well as synthetic CBD. Consumer advocates requested the ability to have access to CBD products, and trade associations strongly urged FDA to move quickly to a regulatory framework to ensure credibility in the marketplace. FDA's questions to each speaker were directed to what data exist with regard the safety of CBD, to which there was minimal response.

Is CBD Permitted in Foods?

As with dietary supplements, under the FD&C Act, it is illegal to introduce or deliver into interstate commerce any food (including animal food or feed) to which a substance with an active drug ingredient has been added. There are a few exceptions, including when the ingredient was marketed in food before it was approved as a drug. However, FDA has concluded that none of the exceptions apply to CBD, and therefore the agency has reiterated that it is a prohibited act to market any food to which CBD has been added.[6]

However, contemporaneous with the signing of the Farm Bill, FDA issued "no questions letters" to three pending Generally Recognized as Safe (GRAS) notices for dehulled hemp seed and oil, indicating that the agency agrees that the ingredients are GRAS for various uses, including as a source of protein, carbohydrate, and fat in beverages, soups, sauces, dressings, baked goods, cereals, snacks, and grain products, among others. FDA noted in the GRAS letters that only "trace amounts of CBD and THC were present in the hemp seed-derived ingredients, and resulted from contamination with other parts of the plant during harvesting and processing." The product considered GRAS has a specification of less than 4 mg/kg THC along with other potential contaminant specifications.

Can I Have a CBD Cocktail?

The U.S. Department of the Treasury, Alcohol and Tobacco Tax and Trade Bureau (TTB), which typically defers to FDA with regard to the safety of ingredients for use in alcoholic beverages, currently does not allow CBD use in alcohol, based on the FDA status of the product. Further, even to the extent that a CBD-based ingredient was considered at some point to be GRAS, TTB would still need to approve any label claims for CBD in alcoholic beverages.[7]

CBD Glow on My Face?

Cosmetics containing hemp extracts have been legally marketed since 2001, when the Drug Enforcement Administration exempted these products from the CSA, provided that the products were made from parts of the cannabis plant outside the definition of marijuana, and the products did not cause THC to enter the body. FDA has been relatively silent on the use of CBD in cosmetics, but the agency has been active when manufacturers tie the use of CBD or hemp to drug claims on the cosmetics. With the passing of the Farm Bill, manufacturers should be able to use CBD in cosmetics, assuming it is marketed only with cosmetic claims. Recently, the market has seen a number of over-the-counter monograph products for topical use for joint pain and other similar indications, with hemp or CBD oil as an inactive ingredient for its moisturizing or other excipient effect. These products have been properly labeled with Drug Facts statements. Although there have not been any FDA Warning Letters specifically on this type of product, the indications should be defensible, assuming the product claims are clear concerning the cosmetic function of the CBD and the ingredient is only included in amounts consistent with an inactive ingredient function.

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FDA Enforcement Action against CBD Products

FDA has issued a large number of Warning and Courtesy Letters to companies marketing food (human and animal) and dietary supplement products containing CBD and making drug claims, including claims concerning cancer, pain, addiction reduction, arthritis, and other serious diseases. Most recently, FDA issued in August 2019 a Warning Letter to Curaleaf in connection with many of its products for human and pet use, including CBD Lotion, CBD Pain-Relief Patch, CBD Tincture, and CBD Disposable Vape Pen.[8]

State Regulations of CBD Products

Although many states have moved quickly since the passage of the Farm Bill to legalize the sale of CBD and CBD products in their states (e.g., North Carolina), several states still prohibit the sale and actively enforce against CBD products (e.g., South Dakota, Nebraska), while others require their registration (e.g., Utah). As the state regulation landscape is changing quickly, routine analysis of the applicable laws should be conducted. Federal courts are also beginning to review state laws regarding CBD in light of the new federal law.

Commercial Considerations for Marketing CBD Products

Notwithstanding the legal uncertainty of the status of CBD, the marketplace is filled with CBD-based products in consumables and consumer products such as supplements, foods (human and animal), cosmetics, and beverages. In the absence of a regulatory framework for these products, and lacking industry-standard testing methodologies, traditional market forces have emerged to attempt to control the risk within the supply chain. Further, as with any consumer product, especially with regard to one for which there is no legal framework, there is always the threat of product liability and National Advertising Division (NAD) and consumer class-action challenges based on asserted injuries and/or false-advertising claims. Below are considerations for mitigation of these risks:

- Ingredient specifications – Most importantly, CBD suppliers/purchasers must be able to document the THC content is not more than 0.3 percent to avoid being considered a controlled substance. Documentation of testing results should be available from a qualified laboratory using accepted methodologies for each batch of CBD. Acceptance of only a Certificate of Analysis would not be adequate.
- Ingredient contaminants/adulteration – Ensure that the product can be documented to be free of heavy metals and other contaminants. Ensure adequate testing of potential bacterial and other adulterants typical of produce/herbs.
- Labels – For finished products, ensure the label is appropriate for the intended uses. Lack of labeling with regard to content, serving size, warnings, net weight, etc. can lead to substantial exposure to class-action claims and potential liability from foreseeable misuse.
- Claims – Avoid disease/drug claims. To the extent that any claims are made, ensure that there is proper substantiation for them. Note that the Federal Trade Commission and NAD require health claims be substantiated with "competent and reliable scientific evidence, which includes, tests, analyses, research, or studies" that have been conducted by qualified experts using validated test methods.[9]
- Warnings – Ensure appropriate warn-

ings for the intended uses, such as keep away from children, warnings against use by subpopulations such as pregnant or lactating women, and interactions with other substances.

- Guarantees – Many companies in the FDA-regulated supply chain will often include in standard terms and conditions guarantees of compliance with the FD&C Act. The uncertain legal status of CBD should be considered before any agreement to such terms.
- Indemnification – Many contracts for CBD products will include indemnification provisions to cover the cost of injuries or false-advertising challenges. Further, to the extent that a CBD product requires recall or market withdrawal, contractual provisions may be triggered to cover the costs of market recovery.
- Insurance – Retailers may request evidence of insurance to cover the cost of injury claims or recall costs. Before agreeing to provide such assurances, it is important to carefully check whether existing insurance policies will even cover CBD products in view of their legal status.
- State licenses – Companies whose functions may be regulated under certain state licenses, such as pharmacies, should be aware of the possible effect of improper CBD sales on the status of those licenses in states where the sales are still prohibited.

Conclusions

The marketplace for CBD products is exploding and expected to grow to $16 billion by 2025.[10] Because FDA ordinarily does not move quickly to regulate new products, especially in times of transition, it is likely that the marketplace will develop its own form of regulation through the use of the NAD, product liability claims, and competitor challenges. In this type of fluid environment, it is critical to ensure that the risk around the legal uncertainty of the ingredient is properly allocated among the parties. ■

***Kathleen Sanzo, Esq.**, is head of Morgan, Lewis & Bockius LLP's FDA practice.*

References

1. www.congress.gov/115/plaws/publ334/PLAW-115publ334.pdf.
2. www.fda.gov/news-events/press-announcements/statement-fda-commissioner-scott-gottlieb-md-signing-agriculture-improvement-act-and-agencys.
3. www.wyden.senate.gov/imo/media/doc/062519 Wyden Letter to FDA HHS on Hemp CBD.pdf.
4. See, for example, letter from Michael A. Chappell, acting associate commissioner of regulatory affairs, FDA, to Kathleen M. Sanzo, Morgan, Lewis & Bockius LLP, responding to Citizen Petition 2005P-0259 from Biostratum Inc. (Jan. 12, 2009) Docket No. FDA-2005-P-0259, and Pharmanex v. Shalala, 2001 WL 741419.
5. www.fda.gov/inspections-compliance-enforcement-and-criminal-investigations/warning-letters/nutra-pure-llc-567714-03282019.
6. www.fda.gov/media/119427/download.
7. ttb.gov/industry_circulars/archives/19-1.shtml.
8. www.fda.gov/inspections-compliance-enforcement-and-criminal-investigations/warning-letters/curaleaf-inc-579289-07222019.
9. See POM Wonderful LLC, 155 FTC 56, 193 (2013), *aff'd in part*, 777 F.3d 478, 504-505 (D.C. Cir. 2015), cert. denied, No. 15-525, 2016 LEXIS 2991 (May 2, 2016).
10. fortune.com/2019/02/25/cbd-cannabinoids-market/.