



WI Drug Recognition Expert Training Bulletin

WI Law Enforcement Guide to Hemp Derived THC

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Spring, 2026 – 3rd Edition

This is a guide for WI Drug Recognition Experts and Wisconsin law enforcement to assist you with Hemp Derived Tetrahydrocannabinol (HDT). HDTs are commonly referred to as “Delta 8 THC”. However, since this trend evolved in 2020 there are a wider range of HDTs than just Delta 8 THC. This is the third edition of this publication that was originally published in 2020, and revised in 2022.

DREs are frequently relied upon as subject matter experts in drug-related investigations. This bulletin is provided to support that role by offering relevant information and context regarding this evolving drug trend. Over the past six years, HDTs have increased in prevalence throughout Wisconsin. This growth is attributed, in part, to a legal gap within federal and Wisconsin hemp laws, as well as limited enforcement and a general lack of awareness.

Currently, there is limited peer-reviewed research available on HDTs. The information contained in this bulletin is based on the author’s investigation into these emerging cannabinoids. The opinions expressed herein are those of the author and are intended for informational and training purposes only. The author is not an attorney. Officers are encouraged to consult with their local prosecutor prior to taking enforcement action based on the information contained in this bulletin.

What are the common types of Hemp-Derived THCs?

Hemp-derived tetrahydrocannabinol (THC) products commonly available in Wisconsin and other states permitting them include the following:

Delta 9 THC: This cannabinoid is the psychoactive cannabinoid in marijuana that causes people to get high. Hemp-derived THC products that contain Delta 9 THC are mostly edibles. The psychotropic effects of hemp-derived Delta 9 THC products and Delta 9 THC found in marijuana products are similar, though some anecdotal reports note a slight difference in effects. Hemp Delta 9 THC products contain anywhere from 5 mg of Delta 9 THC to products that contain 100 mg of Delta 9 THC – far above the recommended edible starting dose of 5-10 mg!

If Delta 9 THC is the psychoactive cannabinoid in marijuana and illegal in WI, how are cannabis manufacturers allowed to sell Delta 9 THC products? The answer is math. Manufacturers produce Delta 9 THC edibles that have a total THC concentration below .3% Delta 9 THC. For example, if a hemp-derived Delta 9 THC gummy weighs one gram, that is 1000 mg. If there is 10 mg of THC in that gummy, the total Delta 9 THC concentration is .01% Delta 9 THC - which is less than the .3% Delta 9 THC allowed by both state and federal law. When cannabis manufacturers and supporters realized states were not cracking down on Delta 8 THC and other hemp-derived THC products, they began producing hemp-derived Delta 9 THC products to further exploit the isomerization loophole.

In Wisconsin, the most common hemp-derived Delta 9 THC products are edibles. Vape products containing Delta 9 THC are not typically sold because their THC concentration exceeds the 0.3% legal threshold. If a Delta 9 THC vape is found, it is likely marijuana-derived.



Cannabis retailers have skirted marijuana laws by including the weight of an HDT edible when computing the total Delta 9 THC concentration. These gummies weigh approximately 1 gram with 10 mg of Delta 9 THC – a strong enough dose to induce cannabis impairment. The reported Delta 9 THC concentration in these gummies is .01%, below the 0.3%, and is indicated on the label. Hemp products are sold in an unregulated industry, and in many cases what the label says doesn't match what is in the edible when tested.



THC – A: THC-A is a non-intoxicating cannabinoid and the precursor to Delta 9 THC. Typically, the cannabis plant synthesizes its precursors in acidic forms, such as THC-A and CBD-A. These acids are unstable and can break down over time or when exposed to environmental conditions (*Road to Ananda, Germano, 2018, Healthy Living Publishing*).

THC-A is converted to Delta 9 THC through decarboxylation, a process that applies heat to cannabis using a lighter, torch, oven, or similar methods. Heat removes a carboxyl group from THC-A, resulting in Delta 9 THC. Proper decarboxylation is essential in producing marijuana edibles, as incorrect temperatures or mediums can reduce THC conversion or affect product quality. An internet search of “THC decarboxylation” explains the process and a video explaining it can be found [here](#).

THC-A products sold in gas stations and cannabis shops in Wisconsin are nearly identical to marijuana products available in states where marijuana is legal. Retailers often claim that hemp-derived THC-A flower contains less than 0.3% Delta 9 THC, although the Delta 9 THC content increases significantly when consumed. Environmental scans of dispensaries and online research indicate that marijuana flower typically has low Delta 9 THC and high THC-A content, similar to hemp-derived THC-A products sold in Wisconsin.

THC-A sales have so far been permitted in Wisconsin because manufacturers and retailers state that hemp THC-A flower contains less than 0.3% Delta 9 THC. Many law enforcement agencies and municipalities do not recognize THC-A as a precursor to Delta 9 THC and may not take enforcement action due to lack of awareness or guidance from local prosecutors. The most common THC-A product sold is the raw plant material, often referred to as “flower”, though vapes are becoming popular as well.

Delta 8 THC: Delta 8 THC was the first hemp-derived THC product sold in Wisconsin, beginning in 2020. While 'Delta 8' is sometimes used to refer to all hemp-derived THC products, it is a distinct cannabinoid among the more than 100 found in cannabis. Its name refers to the double bond on the eighth carbon chain, whereas Delta 9 THC has the bond on the ninth carbon chain.



The majority, but certainly not all, of commercially sold cannabis products have labeling on them identifying them as either hemp derived or marijuana. The above photo is an example of an HDT label. It has language indicating it is hemp derived, the product contains less than .3% Delta 9 THC, and for products with an intoxicating effect there are warnings for use by adults 21 years and older. Marijuana products in states that have recreational or medicinal marijuana are required to have labeling indicating the product contains THC or marijuana. The picture below is Michigan's marijuana warning. An internet search of state specific marijuana warnings will assist with identifying marijuana warnings found on commercially sold marijuana products.



Delta 8 THC is considered psychotropic, though cannabis publications report it binds less effectively to the CB1 receptor in the nervous system than Delta 9 THC.

Retailers often market Delta 8 THC as having a 'mild effect' compared to marijuana. However, "the dose is the poison". These products may contain higher amounts of Delta 8 THC than indicated on the labeling, the user ingests a high dose, or the product contains Delta 9 THC, causing significant impairment. It is promoted for sleep disorders, anxiety, nausea, pain management, and other common uses of cannabis products.

Environmental scans indicate that Delta 8 THC products have largely been replaced by THC-A and Delta 9 THC hemp-derived products. Currently, the most common Delta 8 THC products available are vape cartridges and edibles. Delta 8 THC vapes have a viscous consistency similar to marijuana hash oil vapes, unlike the more aqueous consistency of nicotine and most CBD vape cartridges. These vapes generally produce little to no marijuana odor, which appeals to users seeking discretion. Online retailers also offer Delta 8 THC products such as vape cartridges, edibles, and flower, the latter often being CBD flower sprayed with a Delta 8 THC solution.

Other HDT THC products: Additional HDT products include Delta-6-THC, Delta-10-THC, Delta-O-THC Acetate (which does not occur naturally in cannabis and is classified as a Schedule I drug by the DEA), THC-P, and others. The popularity of these products vary since the introduction of Delta 9 THC and THC-A hemp-derived products. The psychotropic effects of these products vary, and the hemp industry remains largely unregulated. Product labels may not accurately reflect the contents, which could include marijuana or other substances.

As with Delta-8-THC, reports on the effects of these products vary. For instance, Delta-6-THC is reported to be less potent than marijuana, while Delta-O-THC Acetate is marketed as significantly stronger. If you are unfamiliar with a particular HDT, an internet search can provide information, but it is important to verify the credibility of your sources.

How are Hemp Derived THC products made?

HDTs like Delta 8 THC are not found in large amounts in cannabis plants, so manufacturers use extraction and chemical processes to make them. This process is also used to create Delta 9 THC edibles from hemp. To better understand how HDT THC products are manufactured, it's helpful to review the most common methods. The most frequently described method involves isomerization, where manufacturers refine hemp from a CBD isolate to produce Delta 8 THC.

For instance, a [US Patent document](#) on Google Patents describes how CBD is converted into Delta-9 THC. The typical process starts with extracting CBD from hemp, refining it using chemistry, and producing CBD isolate—99%+ pure CBD in crystalline form. Through isomerization, chemists then transform the CBD into an HDT THC. Isomerization is a chemical process in which a molecule is restructured into another molecule with the same atoms, just arranged differently. Most companies that publish an overview of their isomerization techniques described they dissolve CBD in an organic solvent, add acids to lower the pH level to trigger an exothermic reaction, apply heat for several hours as CBD is converted into Delta 8 THC, and then remove residual solvents and acids. This [link](#) details one manufacturer's process for making Delta 8 THC from CBD using isomerization.

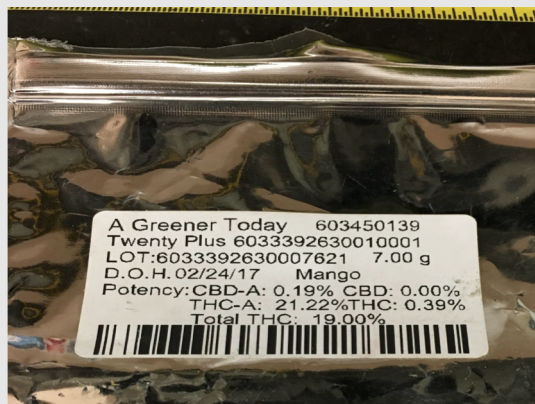
Through my experiences presenting on this topic, I have found that most criminal justice professionals and others in related fields don't understand the process involved in manufacturing HDT products. The HDT products sold have been significantly altered from a "green leafy substance" harvested from hemp. It is my opinion that the isomerization techniques used to produce intoxicating THC products from hemp are clearly intended to skirt existing marijuana laws.

Can Hemp Derived THC cause cannabis impairment?

The short answer is yes – HDTs can cause cannabis impairment. Most CBD and hemp shops in Wisconsin that I have visited now sell Delta 9 THC edibles from hemp and THC-A flower. These contain the same cannabinoids as marijuana, so someone using HDTs will exhibit cannabis impairment. In my Green Lab dosing experience, HDT-induced impairment matches that of marijuana. Expect indicia of cannabis impairment such as bloodshot or watery eyes, tremors, divided attention impairment on field sobriety tests, dilated pupils, dry mouth, droopy eyelids, drowsiness, and, at high doses, paranoia or anxiety.

Anecdotal reports from users of HDTs vary, with some describing effects similar to marijuana edibles, while others note differences. For instance, a store employee I spoke to advised moderating Delta 8 vape titration due to potent effects. A Green Lab volunteer I dosed told me he compared hemp-derived Delta 9 THC gummies as "turkey burgers" versus marijuana Delta 9 THC gummies as "real hamburgers". The context of his statement was they both are burgers, but "real hamburgers" are obviously better than "turkey burgers". These are subjective experiences and not from controlled studies.

Delta 8 THC and other HDT THCs are not specifically listed as a Restricted Controlled Substance for OWI purposes. You cannot cite people for an RCS under 346.63(1)(am) unless there is an RCS, such as Delta 9 THC, also in the blood. If you suspect someone drove under the influence of an HDT product, you can still arrest that person for OWI under 346.63(1)(a) if you have impairment, just like any other drug. A WSLH chemist said she received notices from prosecutors that they incorrectly dropped RCS charges



An example of a marijuana label from a package seized in 2017 before hemp became legal. Note the THC-A and Delta-9 THC percentages listed on the label – almost identical to hemp THC-A products sold in Wisconsin. The total THC percentage of cannabis is calculated by using the formula: $(\text{THC-A} \times .877) + \text{Delta 9 THC} = \text{Total THC}$. This formula is used to compute total THC because THC-A loses its carbon dioxide molecule during decarboxylation when heated and converted to Delta 9 THC.

because the person used - or claimed to use - Delta 9 THC from hemp. **Delta 9 THC greater than 1ng is an RCS violation, no matter if it came from an HDT or marijuana.** The bottom line is this – if you believe the driver is under the influence of a drug other than alcohol, including HDTs, proceed as you would with any other OWI investigation and also conduct a drug influence evaluation.

Chemists at WSLH advise that they can test for Delta 8 THC. If your case involves reported use of Delta 8 THC and toxicology results do not show Delta 8 THC or novel tetrahydrocannabinols, please contact WSLH. They will assist you and your prosecutor with toxicology questions.

Hemp-Derived THC Testing

HDT THC products test positive with Duquenois-Levine or similar presumptive test pouches. No current presumptive test can tell Delta-9-THC from Delta-8-THC or other HDTs. Manufacturers told me these pouches test positive with any THC. If you are testing a product claimed to be CBD, some reagent pouches can show if it is a high THC or low THC hemp CBD product.

TruNark and similar devices are not made for testing cannabis or plant material. They are designed for drugs like methamphetamine, cocaine, or fentanyl. An instructor told me about [LightLab 3](#), which tests cannabis for 18 cannabinoids in minutes. This device costs about \$30K and was bought with a grant.

Laboratory testing is available for a fee. [Badger Labs](#) and [UW-Parkside Natural Labs](#) were recommended to me for cannabis testing. Their websites explain their processes and provide chain-of-custody forms. Company representatives told me they will give a quote for HDT product testing after receiving a sample. An investigator told me pricing starts around \$100, depending on the sample. To get a quote, contact the lab directly. For more complex drug cases, consult your prosecutor and contact the WI Crime Laboratory. Other labs recommended to me are [Armstrong Labs](#) and [NMS Labs](#).

It can't be stated enough, hemp products – especially in Wisconsin – are sold in an unregulated industry. Just because the label says the hemp product is CBD or hemp with a quantified amount of CBD or THC, doesn't mean that's accurate. Studies published by UW-Madison School of Pharmacology ([Analysis of CBD and THC in Nonprescription Consumer Products](#); *Epilepsy and Behavior*; January 2022; Miller, Elder, Jones, Gidal), John Hopkins University ([Cannabinoid Content and Label Accuracy of Hemp-Derived Topical Products Available Online and at National Retail Stores](#); *Journal of American Medicine Association*; July 2022; Spindle, et al.), the Journal of American Medicine Association ([Labeling Accuracy of Cannabidiol Extracts Sold Online](#); *Journal of American Medicine Association*; November, 2017; Bonn-

Miller, Thomas, Miller), and others have documented the inaccuracies of CBD and THC content in hemp products. In addition, investigators have told me during my presentations how they discovered WI hemp shops were a front for a marijuana dispensary, or gas stations bought marijuana vapes and applied stickers to the packaging to disguise them as CBD or Delta 8 THC vapes. It is imperative that law enforcement understands that labeling inaccuracies and stratagems to sell marijuana exist, and not to take the hemp product labeling or advertising as 100% reliable.

What are the laws regarding Hemp-Derived THC?

Cannabis manufacturers are producing HDT products from the Cannabis Sativa L. plant, also called “hemp.” Wisconsin State Statute [961.32\(3\)](#) defines hemp and CBD use. The [2018 Farm Bill](#) removed hemp from Schedule I status and [defined hemp](#) as written below. States, such as Wisconsin, mirrored their hemp statutes based on the federal definition. Wisconsin’s definition of hemp is found in statute [94.55\(1\)](#):

“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 or the maximum concentration allowed under federal law up to 1 percent, whichever is greater, as tested using post-decarboxylation or other similarly reliable methods. “Hemp” does not include a prescription drug product that has been approved by the U.S. food and drug administration.”

Delta 8 THC and most THCs mentioned in this bulletin are naturally occurring cannabinoids. They are found in small amounts in the cannabis plant. As explained above, many HDT THC products result from an isomerization process. The Wisconsin hemp statute includes hemp isomers. Whether the HDT THC product comes from direct extraction or isomerization, hemp laws limit only Delta 9 THC concentrations.

While this isomerization language has opened the door to intoxicating hemp-derived THC products that have largely skirted existing marijuana laws, this loophole may be closing in 2026. Under the *Big Beautiful Bill* that was passed in November, 2025, federal legislation included limitations on THC amounts in products to close this loophole on 11/12/2026 to limit the sale of intoxicating hemp products. After the bill was passed, both the cannabis industry and its supporters realized the implications and have begun measures to either repeal the act or delay its implementation.

If no changes occur by 11/12/2026, the following federal hemp legislation will take place to limit THC in hemp products (Source: www.congress.gov):

Key 2025/2026 Regulatory Changes:

- **Total THC Definition:** Hemp is now defined as having less than 0.3% total THC on a dry weight basis. This covers both Delta 9 THC and THC-A, closing the THC-A loophole.
- **Cap Per Container:** Final hemp-derived products are capped at no more than 0.4 milligrams of total THC per container. Industry experts say this will affect many CBD products.
- **Synthetic/Isolated Cannabinoids:** Compounds not naturally produced by the cannabis plant or made in labs, such as Delta 8 THC and Delta 6 THC, are now clearly excluded from the legal hemp definition, meaning these cannabinoids are considered THC and not hemp.

- **FDA Action:** The FDA will publish lists of naturally occurring and synthetic cannabinoids.

Court decisions on the interpretation of the 2018 Farm Bill have varied. The Federal Ninth Circuit ruled in *AK Futures LLC v. Boyd Street Distro LLC* that HDT products, such as Delta 8 THC, are legal based on the 2018 Farm Bill provided they contain less than 0.3% Delta 9 THC. However, the Federal Eighth Circuit ruled in *Bio Gen LLC v. Sanders* that Arkansas could enforce a 2023 law banning intoxicating HDT's while non-intoxicating hemp products are still permitted provided they meet certain criteria.

Hemp laws vary from state to state, and laws change as policy and attitudes shift. Some states, such as Wisconsin, consider HDT THC products legal because of the isomerization language included in the 2018 Farm Bill and there are very few regulations or oversight. Other states have put restrictions on HDT THC amounts, banned any smokeable forms of hemp or HDT THC, age limits and restrictions on where and how intoxicating hemp products can be sold, how THC is measured in hemp products, and other restrictions. A few Wisconsin communities have passed ordinances regulating HDTs. Wood County, Milwaukee, and La Crosse passed ordinances restricting or regulating HDTs similar to what other states have passed in absence of Wisconsin state legislation. For an updated list of each state's cannabis laws, please see the *Rice University's Baker Institute of Public Policy* website on hemp laws, or click [here](#).

You may want to consider your jurisdiction's THC or marijuana ordinance for possession cases or for stores selling HDTs and other new cannabinoid products. Local ordinance language often mirrors WI's THC law before hemp became legal: *"No person may possess or attempt to possess tetrahydrocannabinols, commonly known as 'THC,' in any form, including, but not limited to, tetrahydrocannabinols that are contained in marijuana, obtained from marijuana, or chemically synthesized, or any controlled substance analog of tetrahydrocannabinols."* If your agency or municipality is thinking about changing your THC ordinance, I recommend considering [Wood County](#), WI's THC ordinance. Their ordinance includes restrictions on sales within certain areas and prohibits sales to people under 21 years of age.

In my opinion, language that includes THC "in any form, but not limited to", or "chemically synthesized", is helpful when citing under a local ordinance for THC possession – especially if suspects claim the cannabis seized is hemp without any proof to back up their claim, such as packaging and receipts. As stated above, HDT products are chemically synthesized from hemp and some of these THC's, such as Delta 8 THC, aren't found in large concentrations in the cannabis plant. Revised hemp federal legislation in the *Big Beautiful Bill* lists Delta 8 THC and similar HDTs as synthesized in labs, and there is legislation from other states that recognizes these HDTs as synthetic or semi-synthetic THC. Local THC ordinances may reflect Wisconsin's prior THC statute before hemp was legalized, and local ordinances aren't required to have a hemp exception similar to what our state law has included. This distinction may be important in a simple possession case, or your prosecutor may default to WI's current THC statute. Circumstances vary by case and jurisdiction, so please consult your prosecutor for additional guidance.

Wisconsin's current THC statute prohibits THC in marijuana. However, the DEA lists Delta 8 THC and other THC's as a [Schedule I drug](#). Tetrahydrocannabinols in hemp are exempt from Wisconsin's THC statute. Wisconsin Statute [961.14\(4\)\(t\)](#) describes tetrahydrocannabinols (THC):

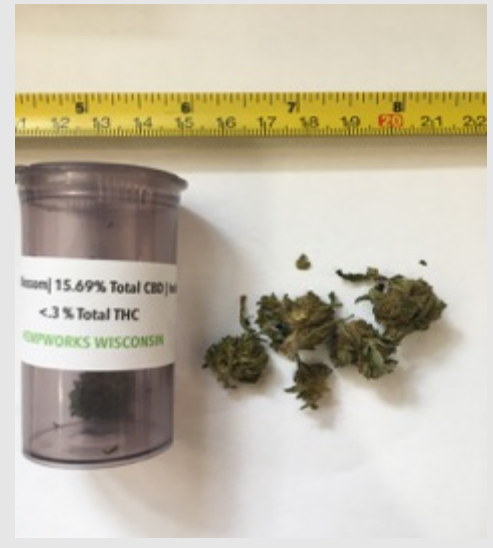
Tetrahydrocannabinols, commonly known as “THC”, in any form including tetrahydrocannabinols contained in marijuana, obtained from marijuana, or chemically synthesized, except that tetrahydrocannabinols do not include any of the following:

1. *Tetrahydrocannabinols contained in a cannabidiol product that is dispensed as provided in s. [961.38 \(1n\) \(a\)](#) or that is possessed as provided in s. [961.32 \(2m\) \(b\)](#).*
2. *Tetrahydrocannabinols contained in fiber produced from the stalks, oil or cake made from the seeds of a Cannabis plant, any other compound, manufacture, salt, derivative, mixture or preparation of the mature stalks (except the resin extracted therefrom), fiber, oil or cake or the sterilized seed of a Cannabis plant which is incapable of germination.*
3. *Tetrahydrocannabinols contained in hemp, as defined in s. [94.55 \(1\)](#).*
4. *A drug product in finished dosage formulation that has been approved by the United States food and drug administration that contains cannabidiol (2-[1R-3-methyl-6R-(1-methylethenyl)-2-cyclohexen-1-yl]-5-pentyl-1,3-benzenediol) derived from cannabis and no more than 0.1 percent (w/w) residual tetrahydrocannabinols.*

There have been questions asked whether Delta 8 THC and similar HDTs can be considered as an analog. The short answer is no, though arguments have been made successfully that these HDTs are synthetically produced. Delta 8 THC is nearly identical to Delta 9 THC, with a minute difference in where the carbon bond attaches in the THC molecule. The [Federal Analog](#)

[Act](#) was meant to combat designer drugs that have similar or greater effects to a controlled substance, and these substances are treated federally as Schedule I controlled substances. Delta 9 THC is listed as a Schedule I controlled substance under WI Statute [961.14\(4\)\(t\)](#). WI Statute [961.01\(4m\)](#) defines controlled substance analogs.

A discussion arises whether Delta 8 THC can be charged as synthetic THC (such as “Spice/K2”, JWH-007, etc.). Delta 8 THC and other HDTs are naturally occurring cannabinoids found in small concentrations in cannabis. Synthetic THC products are synthesized in a laboratory setting and aren’t naturally found in the cannabis plant in any concentration. HDT products may include other drugs or NPS, so a cannabinoid profile may not test for NPS and synthetic cannabinoids. There have been instances of synthetic cannabinoids found in CBD products. See [961.14\(4\)\(tb\)](#) for a list of synthetic cannabinoids.



I bought this 1g of hemp/CBD flower from a Green Bay retailer in February 2020 and sent it off for laboratory testing for training purposes. The package label said there was less than 0.3% Delta 9 THC, but the laboratory testing I had conducted reported there was 2.16% Delta 9 THC – 7x over the legal amount of Delta 9 THC allowed in hemp.

According to the *Federal Potency Monitoring Project*, THC content of commercial grade marijuana was 2.84% in 1985, 3.73% in 1995, and 4.72% in 2001.

The Odor of Marijuana, HDT's, and PC to search vehicles

The following was published from Wisconsin DOJ's 3/15/2019 memo, [Advice Regarding Industrial Hemp](#), to determine probable cause regarding the odor of marijuana:

Under well-established Wisconsin law, the odor of marijuana coming from a vehicle provides probable cause to believe that the vehicle contains evidence of a crime. State v. Secrist, 224 Wis. 2d 201, 210, 589 N.W.2d 387 (1999). And, absent evidence that the substance causing the odor is in fact legal industrial hemp, a court would likely reach the same conclusion now. Although there is a chance that the substance causing the odor is legal industrial hemp, the fact remains that there is a "fair probability" that it is illegal marijuana. State v. Hughes, 2000 WI 24, ¶ 21, 233 Wis. 2d 280, 607 N.W.2d 621 (probable cause requires only a "fair probability" that evidence of a crime will be found); see also State v. Nieves, 2007 WI App 189, ¶ 14, 304 Wis. 2d 182, 738 N.W.2d 125 ("[A]n officer is not required to draw a reasonable inference that favors innocence when there also is a reasonable inference that favors probable cause.").

The same is true if a canine trained to detect marijuana alerts on a vehicle: Provided that law enforcement can establish that the canine has been appropriately trained and has demonstrated a sufficient level of reliability detecting drugs in the past, a court would likely find that the canine alert provides probable cause to search the vehicle. Harris, 568 U.S. at 248; State v. Miller, 2002 WI App 150, ¶ 14, 256 Wis. 2d 80, 647 N.W.2d 348. Indeed, the probable cause is higher than when a trained officer smells the odor of marijuana, because although there is an equal chance that the canine and the officer have both detected legal industrial hemp, the canine alert includes the additional probability of locating illegal drugs besides marijuana that the canine has been trained to detect.

Some agencies across Wisconsin have reacted to CBD and hemp legalization by not imprinting police working dogs on the odor of marijuana, or not allowing vehicle searches based on officers detecting the odor of marijuana from a vehicle. The Wisconsin DOJ came out with the above memo in 2019 that said K9 alerts from dogs imprinted with marijuana odor established probable cause to search a vehicle, as would an officer with training and experience in the detection of marijuana odor. The Wisconsin Supreme Court's 2023 decision in [State v. Moore](#), 404 Wis. 2d 510, 979 N.W.2d 183, held that the odor of marijuana, detected by a person with training and experience in marijuana odor, creates a reasonable probability that a crime was committed and justifies a vehicle search. A case litigated in the 7th Federal Circuit Court of Appeals that stemmed from a La Crosse PD arrest, [US v. Plancarte 22-CR-64-WMC](#), ruled an alert from a properly trained police K9 imprinted with marijuana odor still gave PC to search the suspect vehicle in this case, which resulted in the seizure of 11 pounds of methamphetamine.

Until something changes, K9 alerts from dogs imprinted with marijuana odor, or trained officers detecting an odor of marijuana, give probable cause to search a vehicle because marijuana is illegal in Wisconsin. Police K9s also alert to drug odors other than marijuana. The language quoted in the 2019 WI DOJ Memo above provides an excellent framework for determining probable cause when investigating the odor of marijuana from a vehicle.

I caution against setting up a K9 training exercise with HDTs – or a hemp product purchased at a retailer or online - if your police K9 is imprinted on marijuana odor, unless you use a tested and verified hemp

product. HDT products may contain marijuana or other drugs added to them. I think it is beneficial to explore training K9s in the distinction between marijuana and hemp. At Florida International University, Dr. Kelvin Frank and his colleagues published a study how they trained dogs to differentiate between hemp and marijuana, ([*Utilizing Headspace Solid-Phase Microextraction for the Characterization of Volatile Organic Compounds Released from Contraband and its Implications for Detector Dog Training*](#)).

I recommend caution when testifying about human or K9 olfactory comparisons of hemp and marijuana. Also, police [K9s don't alert to THC](#). They generally alert to volatile organic chemicals with high vapor pressure in the substance they are trained to detect. Unless you have smelled a verified and tested hemp product, or you are a subject matter expert on cannabis botany, you are speculating whether the unregulated hemp product smells the same as marijuana. There are too many instances and studies of inaccurate hemp labeling, and law enforcement investigations of hemp that was really marijuana, for you to assume the hemp flower – or any hemp product - bought at a local gas station isn't marijuana. You should only be testifying to facts, and you should not be testifying to speculation or assumptions.

Delta 8 THC Health Warnings

In 2021, several organizations issued warnings about the safety and side effects of Delta 8 THC. On September 14, 2021, the [FDA highlighted](#) serious health risks, noting that Delta 8 THC products have not been evaluated for safe use and are often marketed in ways that endanger the public. The FDA also

received complaints about adverse effects, emphasized the psychoactive and intoxicating properties of Delta 8 THC, and warned that production may involve harmful chemicals. The FDA advised that these products should be kept away from children and pets.

Cannabis advocacy groups have also cautioned consumers about Delta 8 THC and other novel cannabinoid products. The National Organization for the Reform of Marijuana Laws ([NORML](#)) [warned](#) against ingesting synthetic cannabinoids made from hemp, including Delta 8 THC. NORML advised consumers to avoid purchasing these products from unregulated sources such as convenience stores, smoke shops, and gas stations, as products from these locations are not reliably tested and may contain many impurities.

Impurities resulting from novel cannabinoid production are recognized by cannabis manufacturers. ExtraktLab, [in a YouTube video](#), discusses the "residuals and unknowns" present during the CBD-to-Delta-8-THC

conversion process. The cannabis publication Leafly, [in the article](#) "[Meet THC-O, a hemp-derived compound three times stronger than THC,](#)" outlines the dangers of producing THC-O. Leafly notes the use of the highly flammable compound acetic anhydride in THC-O production and advises against home



Delta 8 THC edibles purchased at a gas station in SE Wisconsin. Note the cannabis intoxicated cartoon characters and marijuana references intended to appeal to young adults. Photo credit: Joe Keil.

manufacturing. The article also highlights concerns from regulated manufacturers about unregulated companies failing to follow best practices and not informing consumers.



The above Delta 8 THC gummies tested for 4.2mg of Delta 8 THC, compared to the 10mg per gummy listed on the packaging. Below is a Delta 8 THC vape I bought in 2020 that tested with more Delta 8 THC than indicated on the package. No Delta 9 THC was detected in either sample.



NORML also warned about health risks from other novel psychotropic cannabinoids synthesized from hemp, such as THC-O and Delta-10 THC. THC-O is reported to have stronger intoxicating effects than marijuana. The long-term health effects and efficacy of these cannabinoids and their manufacturing processes have not been studied. NORML stated, *"NORML does not endorse commercial sale of these or other new synthetic cannabinoids until more research on their safety and purity has been performed."*

A specific health concern with vaping cannabis is the use of additives in vape cartridges. Because cannabis oil is viscous, manufacturers often add chemicals such as propylene glycol (PG) to improve cartridge function. PG is chemically similar to the main ingredient in antifreeze and can form carcinogens such as acetaldehyde and formaldehyde when heated. Researchers at [Portland State University](#) have explained how PG, glycerol, and certain vape device characteristics can lead to unhealthy outcomes.

Some cannabis vape cartridge manufacturers have added lipid-based cutting agents, such as vitamin E acetate or coconut oil, to dilute their products. The [American Journal of Roentgenology](#) has reported lung injuries from inhaling lipids through vaping, including cases of respiratory failure and pneumonia. In 2019, the [Milwaukee](#) area experienced an outbreak of lung injuries suspected to be caused by vitamin E acetate poisoning.

Hemp Derived THC and Children

Currently, Wisconsin does not have statutes restricting hemp sales to minors under Wisconsin State Statutes 94.55 and 961.32. As of Spring 2026, legislation (SB 644/SB 682) has been introduced to amend those statutes and prohibit the sale of HDT THC products to minors. Wisconsin also lacks a state law prohibiting individuals under 21 from being under the influence of marijuana or cannabis. Some states with recreational marijuana, such as Colorado, have ordinance violations for underage marijuana

possession and intoxication (see Colorado Criminal Code 18-13-122). Several Wisconsin municipalities, including La Crosse, Wood County, and Milwaukee, have passed ordinances restricting sales and/or possession of HDT THC products by those under 21.

The FDA warned that some manufacturers use packaging and labeling designed to appeal to children. In addition to online sales and the presence of [adulterants](#), children may be able to purchase Delta 8 THC products at gas stations and convenience stores that do not enforce age restrictions. The FDA cited multiple poison control center alerts involving children who consumed Delta 8 THC products. Anecdotally, some individuals under 21 report using marijuana instead of alcohol to avoid underage alcohol violations. If someone distributes an HDT product to a child with intent to commit a felony or other crime, consider charges under Chapter 948 – Crimes Against Children.

Each case is unique, so consider Wisconsin Statute [961.46](#) if a business or individual is distributing HDT THC products to children. Manufacturers may add other psychotropic substances to Delta 8 THC products; therefore, complete analytical testing is recommended.

Conclusion and Analysis

In my opinion, HDT products will likely remain popular due to their perceived psychotropic effects and limited enforcement in this complex legal area. As noted in previous Delta 8 THC bulletins, the rise in popularity of Delta 8 THC as a legal, minimally regulated product has led to the emergence of new HDT products. Drug Recognition Experts should be prepared to encounter drivers under the influence of novel cannabinoid products. Ongoing ARIDE training for law enforcement is essential, and your role as DREs in identifying drug-impaired drivers remains important.

The intent of revised federal and state hemp laws was to allow manufacturers to produce non-psychotropic hemp products from the Cannabis Sativa L. plant, which was federally classified as a Schedule I drug until 2018. Cannabis advocates have promoted hemp's diverse uses, including construction materials and the potential medicinal benefits of non-psychotropic cannabinoids like CBD. Legislators at both levels aimed to support this emerging industry while clearly limiting the content and psychotropic effects of Delta 9 THC.

Some cannabis advocates have cited a 1995 publication by Dr. Raphael Mechoulam, which studied [Delta 8 THC as an antiemetic treatment](#) for eight pediatric oncology patients, to suggest that Delta 8 THC is safe for children. However, this study was conducted in a controlled environment and only observed antiemetic effects in a small group. Recreational Delta 8 THC and HDT use is not controlled or administered in measured doses under medical supervision. With the exception of the CBD prescription drug Epidiolex, hemp products remain unregulated, are not FDA-approved, and are not routinely tested.

I hope this document serves as a helpful guide for situations involving HDT products or other novel tetrahydrocannabinols derived from hemp. Please contact me at nplace30@yahoo.com with any questions.