

# HISTORY

With the passage of the 2018 Farm Bill, the prevalence of hemp-derived cannabinoids, or what the state of Montana has now defined as “Synthetic Marijuana”, has increased. The 2018 Farm Bill broadly defines hemp as:

## 7 USC § 1639o (1) HEMP

The term “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.

Since the definition of hemp includes the language “all derivatives”, a new market where cannabinoids synthesized (chemically or biologically) from legal hemp CBD has emerged.

# MONTANA LAWS

## Montana Code Annotated (MCA)

### 16-12-117

Synthetic marijuana products prohibited -- restriction on sale of marijuana products. (1) A person may not manufacture, process, or offer for sale a synthetic marijuana product.

### 16-12-102

#### Definitions:

(40) “**Synthetic cannabinoids**” has the meaning provided in 50-32-222 and includes any cannabinoids produced artificially, whether from chemical synthesis or biosynthesis using recombinant biological agents, including but not limited to yeast and algae.

(41) “**Synthetic marijuana product**” means marijuana or marijuana products that contain synthetic cannabinoids.

## FOR MORE INFORMATION

Scan the QR code to be directed at the Cannabis Control Division's Synthetic Marijuana web page.



## CONTACT US

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# SYNTHETIC MARIJUANA



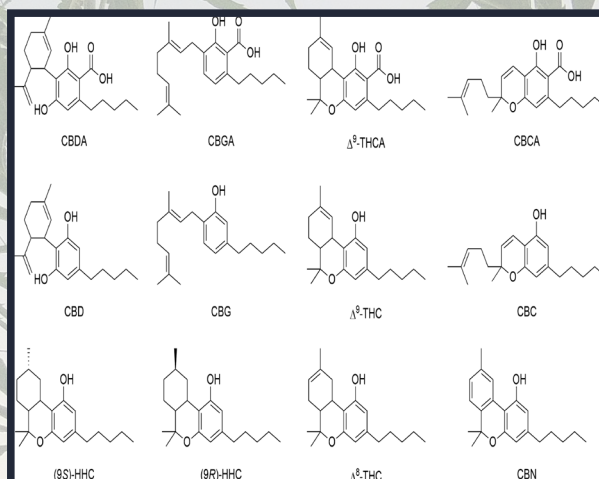
CANNABIS  
CONTROL  
DIVISION  
MONTANA

## WHY SYNTHETIC PRODUCTS ARE A THREAT TO HEALTH AND SAFETY

1. No product safety testing requirements. Creation of unknown by-products not tested for health and safety.
2. No age restrictions. Easily accessible to youth.
3. Creation of novel cannabinoids not found in nature or tested for health and safety.
4. Synthesis makes use of toxic reagents and chemicals such as organics solvents(benzene, toluene, xylenes), strong acids (hydrochloric acid, sulfuric acid), and metal catalysts. These reagents could remain in the final product.
5. No standardized packaging and labeling requirements.
6. Products could be just as or more psychoactive than legal marijuana products.

## Typical synthetic Cannabinoids include:

delta-8-THC( $\Delta^8$ ),  
delta-10-THC( $\Delta^{10}$ ),  
HHC, THCV, THCP,  
THC-O-acetate, etc.



Source: Russo, E., Vandelli, M.A., Biagini, G. et al. Synthesis and pharmacological activity of the epimers of hexahydrocannabinol (HHC). Sci Rep 13, 11061 (2023). <https://doi.org/10.1038/s41598-023-38188-5>



Source: <https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc>

## FISCALLY IMPRACTICAL

Some synthetic cannabinoids do have natural analogs found in cannabis biomass. However, they are only found in trace amounts. The volume of biomass needed to extract and concentrate naturally derived cannabinoids in commercially viable quantities is extremely excessive and therefore cost prohibitive.

For example:  
It would take 55,000 kilos of cannabis biomass to make 1 kilo of delta-8-THC. The biomass would cost approximately \$22,000,000 and the delta-8-THC would be worth approximately \$500,000,000. Therefore, extraction and concentration of trace level naturally occurring cannabinoids, such as delta-8-THC, is fiscally impractical.