



CERTIFICATION OF HEMP PRODUCTS





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To help protect consumers, NSF International is now certifying hemp and hemp-derived cannabidiol (CBD) products to NSF's Contents Certified standard: NSF/ANSI 173, the American National Standard for dietary supplements. Products containing hemp or hemp-derived CBD are **NOT** eligible for certification under NSF International's Certified for Sport® program.

WHY ARE WE CERTIFYING HEMP-BASED PRODUCTS?

Hemp-based products are widely available in the United States in products ranging from dietary supplements, beverages and edibles to oils, creams and sprays. These products can be manufactured and marketed by small start-ups with little expertise in quality management, Good Manufacturing Practices (GMPs) and labeling requirements, creating potential risk and confusion for consumers. Even established brands may have limited experience sourcing, authenticating, producing and packaging hemp-based products.

Rigorous standards, validated tests and third-party audits are needed to protect consumers using products that contain hemp. As a mission-driven organization focused on protecting and improving human health, NSF International is committed to providing services that help manufacturers produce, process and package hemp-based products consistent with GMPs, appropriate quality-control procedures and applicable labeling requirements. With scientific expertise and decades of experience in the relevant product categories, NSF International is uniquely qualified to serve the fast-growing hemp industry in the United States and help protect consumers who use these products.



This document is dated February 17, 2020. This document does not constitute legal advice. Clients are encouraged to seek legal counsel with regard to their specific products and ingredients. *The criteria defined in this document, including qualifiers such as "eligible," "allowable" and the like (i) reflect the requirements of NSF certification only, and not those of any state or federal law or regulation, and (ii) are subject to change at any time. Not all products will qualify for certification. Please contact your NSF representative to inquire about your specific product and its eligibility for certification.*

DEFINITIONS OF HEMP, HEMP EXTRACTS AND CBD

WHAT IS HEMP?

Under U.S. law, “hemp” refers to “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 THC] concentration of not more than 0.3 percent on a dry weight basis.” 7 U.S.C. 1639o¹

On December 20, 2018, the President signed into law the Agriculture Improvement Act of 2018 (more commonly referred to as the 2018 Farm Bill).

The 2018 Farm Bill amended the U.S. Controlled Substances Act by:

- Removing hemp and its derivatives (including hemp-derived CBD) from the definition of “marijuana”
- Removing THC present at 0.3% or less in hemp and its derivatives from the separate schedule I listing for THC

¹**Title 7 of the United States Code** outlines the role of agriculture in the United States Code: 7 U.S. Code CHAPTER 38 SUBCHAPTER VII – HEMP PRODUCTION

WHAT IS CBD?

Cannabidiol (CBD)

A phytocannabinoid present in cannabis

Hemp CBD Isolate

CBD extracted from one or more hemp plant parts (e.g. flower) and isolated from one or more other constituents in whole or in part such that the subsequent product contains CBD with a specified purity percentage and impurity profile

Hemp

Contains compounds found naturally occurring in the *Cannabis sativa* L. plant, including terpenes, essential oils and cannabinoids (including CBD)

HEMP VS. CBD

CBD

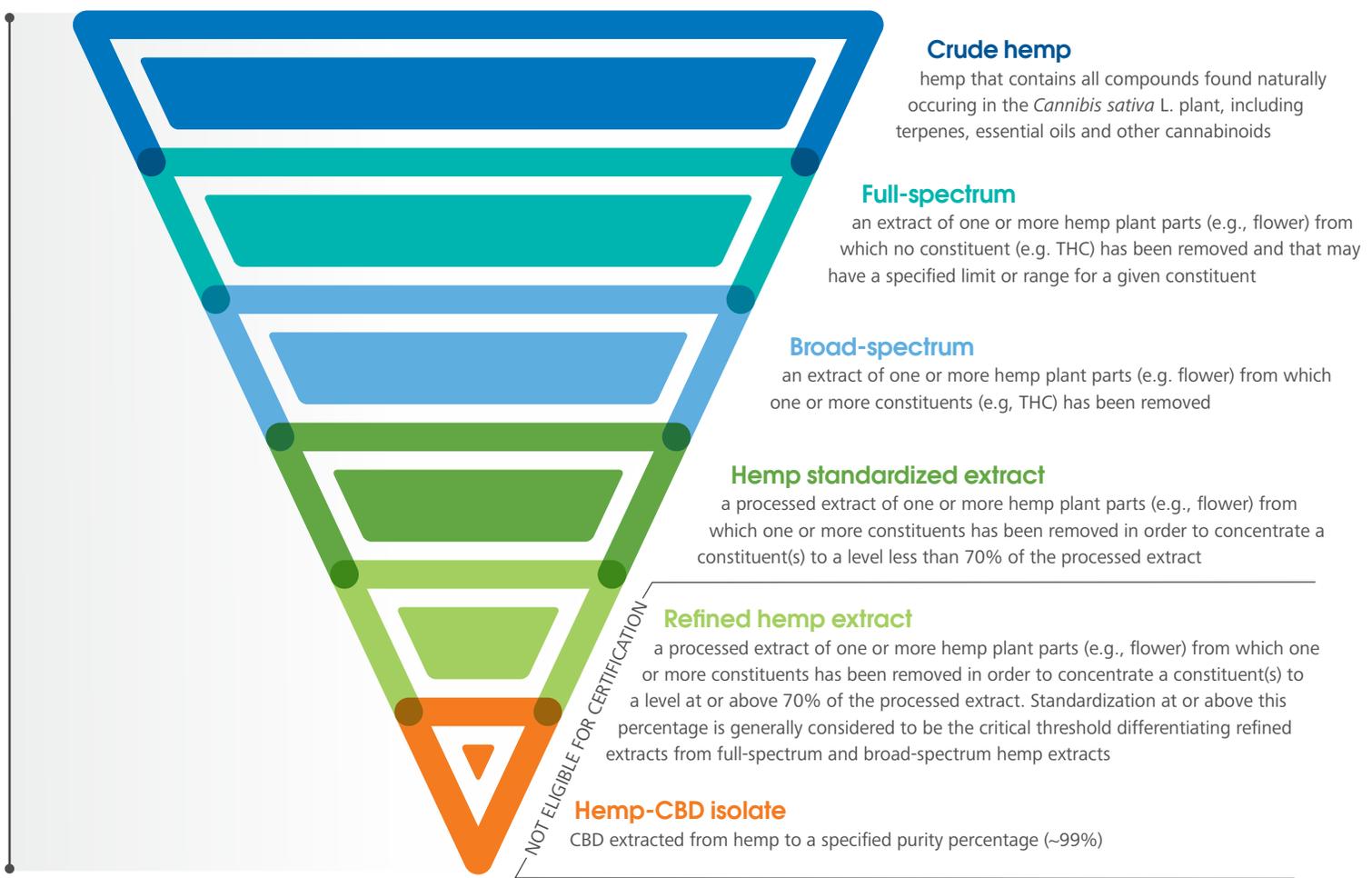
Extracted from one or more hemp plant parts (e.g. flower) and isolated from one or more other constituents in whole or in part such that the subsequent product contains CBD with a specified purity percentage and impurity profile





COMPARING HEMP EXTRACTS

Minimally processed



Highly processed

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IS YOUR PRODUCT ELIGIBLE TO APPLY FOR CERTIFICATION?

Are products containing hemp eligible for NSF's Contents Certified program?

Products containing hemp may be eligible for certification to NSF/ANSI 173: Dietary Supplements or to NSF 229: Functional Food, depending on the circumstances.



- > Products that **make no CBD content claims**: Are eligible for evaluation under the requirements of NSF/ANSI 173 or NSF 229, which include testing for acceptable levels of trace CBD pursuant to FDA GRAS. **Example: hemp-seed based products**
- > Products that **make CBD content claims** and **that contain: full spectrum, broad spectrum or hemp standardized extract**: Are eligible for evaluation under the requirements of NSF/ANSI 173 or NSF 229 provided the product meets NSF International's allowable daily intake (ADI) for CBD in acceptable hemp-based ingredients.
- > Products formulated with **CBD isolate** or **refined hemp extract**: Are not eligible for evaluation under NSF/ANSI 173 or NSF 229.

Are products containing hemp and hemp-derived CBD eligible for NSF's Certified For Sport® certification?

No. As of February 17, 2020, NSF is not certifying such products under this program. NSF's Certified for Sport® program tests for more than 270 athletic banned substances, including THC, which is currently on the WADA list of prohibited substances. Additionally, some sports organizations consider both THC and CBD prohibited substances. For these reasons, products containing hemp or hemp-derived CBD are not eligible for this program.

How did NSF determine the allowable daily intake of 20 mg/day?

The derivation of the proposed allowable daily intake (ADI) is based on a comprehensive risk assessment in which we considered safety studies conducted in both human subjects and in animals. More specifically, the ADI was derived from what we considered to be the most relevant and robust study, based on the highest dose level that did not elicit any treatment-related adverse effects. The ADI also accounts for various sources of uncertainty in our assessment, including unknown effects of chronic (lifetime) exposure, unknown effects in sensitive subpopulations, and unknown effects on reproductive health.

What testing will NSF be performing to assess my hemp product?

The standard profile of testing which includes label content, heavy metals, pesticides and protein testing (if applicable) will be performed. Additionally, hemp based products will also be tested for THC content to verify the product does not contain more than 0.3% on a dry weight basis as well as a cannabinoids and residual solvents screen. Terpenes and flavonoids may be tested to confirm botanical identity.

IS YOUR PRODUCT ELIGIBLE TO APPLY FOR CERTIFICATION?

To be eligible to apply for certification, your product must meet all requirements of the standard.

Not sure if your product qualifies? Here are some examples of what's allowed and what is not.

Promotion and Labeling Claims (Outside the Facts Panel)

In promotional materials and label claims outside the Facts Panel, certain claims are allowed, and others are not.

ELIGIBLE	NOT ELIGIBLE
Structure/function claims in compliance with 21 CFR requirements for dietary supplements (e.g. helps to support, aids in, maintains)	Claims that imply an effect on disease including those that "diagnose, treat, cure or prevent any disease" (e.g. drug claims)
≤ 0.3% THC dry weight	THC free, zero THC, no THC, guaranteed to pass a drug/banned substance test
Non-detectable THC to one of the following: 1,000 nano grams/gram OR 1,000 parts per billion OR 0.00001%	Pure CBD, CBD isolate

Ingredients

Under the standard, certain ingredients are allowed and others are not.

ELIGIBLE	NOT ELIGIBLE
Hemp derived from <i>Cannabis sativa</i> L.	CBD isolate
Full-spectrum hemp/broad-spectrum hemp	Refined hemp standardized to ≥ 70% of one chemical (e.g. std ≥ 70% CBD)
Hemp seed, hemp oil, hemp protein	Full-spectrum CBD/broad-spectrum CBD
Hemp standardized extract	

Allowable Daily Intake

ELIGIBLE	NOT ELIGIBLE
Full and broad-spectrum hemp products resulting in CBD consumption of ≤ 20 mg/day†*	Full and broad-spectrum hemp products resulting in CBD consumption of > 20 mg per day.*
Full and broad-spectrum hemp products resulting in CBD consumption of ≤ 2 mg per day*	
†Duration of use statement (or similar) is required: "Do not use this product for longer than 90- days without consulting a health care practitioner." *CBD consumption level should be estimated based on the proportion of the product comprised of CBD, and the maximum recommended dose of the product.	

Facts Panel Claims

In the "Facts Panel", certain claims are allowed and others are not.

ELIGIBLE	NOT ELIGIBLE
Example Product: Hemp oil 500 mg	Example Product: CBD oil 250 mg

DOES YOUR PRODUCT LABEL MEET THE PRODUCT CERTIFICATION CRITERIA?

DO's

The ingredient is full-spectrum hemp

CBD content claim does not exceed allowable daily intake and has the proper duration of use statements

Provides duration of use statement appropriate for CBD content claim

Does not make drug claims

Supplement Facts		
Serving Size: 1mL (1 Full Dropper)		
Servings Per Container: 30		
	Amount Per Serving	% Daily Value
Calories	5	
Total Fat	<1g	1%
Full Spectrum Hemp Extract (Aerial Parts)	500 mg	**
...CBD	5 mg	**
*Percent Daily Values are based on a 2,000 calorie diet. **Daily Value not established		
Other Ingredients: Fractionated Coconut Oil (MCT)		

Do not use this product for longer than 90 days without consulting a health care practitioner

Supplement Facts		
Serving Size: 1mL (1 Full Dropper)		
Servings Per Container: 30		
	Amount Per Serving	% Daily Value
Calories	5	
Total Fat	<1g	1%
CBD Hemp Isolate	250mg	**
*Percent Daily Values are based on a 2,000 calorie diet. **Daily Value not established		
Other Ingredients: Cannabidiol Isolate, Fractionated Coconut Oil (MCT), Corn Syrup, Sucrose, Water		

Take daily to relieve anxiety, inflammation and chronic pain

DON'Ts

Use of CBD Isolate as ingredient

Exceeds CBD allowable daily intake

Use of CBD Isolate as ingredient

Implies daily use without specifying duration of use

Makes drug claims



CONTACT US

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