

Department of Consumer Protection

Hemp Manufacturer Testing Standards - Policies and Procedures

Effective February 19, 2024

The Department of Consumer Protection (“Department”) regulates hemp manufacturing in the State of Connecticut and is responsible for setting testing standards for manufacturer hemp products pursuant to Chapter 424 of the Connecticut General Statutes. These policies and procedures effectuate the intent of Chapter 424 of the Connecticut General Statutes, as amended, and the testing standards herein are meant to ensure the safety and compliance of products regulated by the Department. These policies and procedures set forth the testing standards that shall be followed by manufacturers and the laboratories with which they work. Notwithstanding any notice and comment period, these policies and procedures are effective as of the date set forth above pursuant to Chapter 424 of the Connecticut General Statutes.

Section 22-61m-1. Definitions. As used in sections 22-61m-1 to 22-61m-5, inclusive, of these policies and procedures, the following terms shall have the same meaning as provided in section 22-61l of the general statutes, as amended from time to time: “Hemp,” “Independent testing laboratory,” “Manufacturer,” and “Manufacturer hemp product.” In addition, for the purposes of these policies and procedures:

“Batch” means (1) a specifically identified quantity of raw hemp, uniform in character and quality, from the same seed stock or cuttings taken from hemp plants of the same genotype and phenotype, that has undergone the same propagation and cultivation processes, and was harvested at the same time, in the same environment, and under the same conditions, or (2) a distinct group of manufacturer hemp product, uniform in character and quality, that has been produced in the same environment, under the same conditions, and from the same processes, equipment, and ingredients during the same cycle;

“Delta-9” means delta-9 tetrahydrocannabinol; and

“THC” has the same meaning as provided in section 21a-420 of the general statutes.

Section 22-61m-2. Preliminary Hemp Laboratory Testing Requirements.

- (a) Before a manufacturer receives any batch of hemp from in or out of state, a manufacturer shall obtain a copy of hemp testing results from the grower for the batch that demonstrates the batch contains not more than 0.3% delta-9 on a dry weight basis.
- (b) Upon receipt of any hemp batch, and prior to any manufacturing of such hemp, a manufacturer shall have the hemp batch tested for delta-9 concentration by an independent testing laboratory, using the sampling methods set forth in section 22-61m-4 below, to ensure the hemp batch contains not more than 0.3% delta-9 on a dry weight basis.

- (c) Prior to sample collection by the independent testing laboratory, a manufacturer shall homogenize the hemp batch to the greatest extent reasonably possible if such hemp batch is ground, chopped, or otherwise capable of homogeneity.
- (d) Each hemp batch received shall be separated from other hemp batches and not used for any purpose until the independent testing laboratory provides results that confirm the hemp batch contains not more than 0.3% delta-9 on a dry weight basis.
- (e) If a sample fails to meet the preliminary delta-9 concentration test required under this section the manufacturer may either:
 - (1) Destroy the batch; or
 - (2) Combine the batch with another batch that has been tested pursuant to this section for the purpose of diluting the delta-9 concentration.
- (f) The manufacturer shall, within five (5) business days of receipt of a failed test result, provide written notice to the Department describing whether the product will be destroyed, or combined with another batch for the sole purpose of delta-9 concentration dilution.
- (g) The combined hemp batch shall undergo preliminary delta-9 testing as required by this section, and the manufacturer shall retain records demonstrating:
 - (1) which batches were combined,
 - (2) the independent testing laboratory delta-9 concentration test results associated with each individual batch combined, and
 - (3) the results of the delta-9 concentration test of the combined batches.
- (h) If destroying a batch, the manufacturer shall grind and mix the batch with non-cannabis waste material such that it is rendered permanently unusable.

Section 22-61m-3. Final Hemp Laboratory Testing Requirements.

- (a) After all manufacturing of a manufacturer hemp product by the manufacturer has been completed, and the manufacturer hemp product is in final form, the manufacturer shall ensure the manufacturer hemp product is homogenized, and then have the manufacturer hemp product tested in its final form by an independent testing laboratory for THC concentration, microbiological contaminants, mycotoxins, heavy metals and pesticide chemical residue, in accordance with the following standards, for a satisfactory result:
 - (1) THC Concentration Level Testing: each sample shall contain no more than 0.3% THC on a dry weight basis.
 - (2) Microbial Testing: a hemp sample shall be deemed satisfactory if (i) E. coli, shiga toxin producing E. coli, L. monocytogenes, and salmonella spp. are not detected, (ii) the total aerobic microbial count and total combined yeast and mold count are each equal to or

less than 10^5 cfu/g or ml, and, (iii) if the hemp is intended for inhalation, the pathogenic *Aspergillus* species *A. fumigatus*, *A. flavus*, *A. niger*, and *A. terreus* are not detected.

- (3) Mycotoxin Testing: a hemp sample shall be deemed satisfactory if it contains less than 20 micrograms per kilogram of each of the following mycotoxins: aflatoxin B1, aflatoxin B2, aflatoxin G1, aflatoxin G2, and ochratoxin A.
- (4) Heavy Metal Testing: a hemp sample shall be deemed satisfactory if it meets the following standards for the intended route of administration, based on consumption levels of up to ten (10) grams per day:

Heavy Metal	Intended Route of Administration: Inhalation ($\mu\text{g/g}$)	Intended Route of Administration: Not inhalation ($\mu\text{g/g}$)
Cadmium	≤ 0.2	≤ 0.5
Arsenic	≤ 0.2	≤ 1.5
Lead	≤ 0.5	≤ 0.5
Mercury	≤ 0.1	≤ 3.0

- (5) Pesticide Chemical Residue Testing: a hemp sample shall be deemed satisfactory if it satisfies the most stringent acceptable standard for a pesticide chemical residue in any food item as set forth in Subpart C of the federal Environmental Protection Agency's regulations for Tolerances and Exemptions for Pesticide Chemical Residues in Food, 40 CFR 180.
- (b) If a sample receives satisfactory results for each test required in this section, the hemp batch from which the sample was taken may be released for sale.
- (c) If a sample fails to meet any one of the microbiological, mycotoxin, heavy metal, or pesticide residue testing standards set forth in section 22-61m-3 of these policies and procedures, then:
- (1) The manufacturer shall comply with section 22-61m(n) of the general statutes with respect to the manufacturer hemp product from which the sample was taken; and
 - (2) The independent testing laboratory shall submit to the manufacturer an electronic copy of test results for all of the tests required by section 22-61m-3 of these policies and procedures conducted on such sample, as well as maintain a record of such results for a minimum of three years, which record shall be made available to the department upon request and produced electronically if possible.

Section 22-61m-4. Independent Testing Laboratory Sampling Procedure.

- (a) Samples shall be selected at random by the independent testing laboratory, and shall consist of groupings of subsamples, which subsamples shall be comprised of not less than five grams. The required number of subsamples per batch is as follows:

Batch of <5 kg	=	6 subsamples per sample
Batch of 5-25 kg	=	12 subsamples per sample
Batch of >25 kg	=	24 subsamples per sample

- (b) For purposes of preliminary hemp testing to confirm delta-9 concentration, pursuant to section 22-61m-2 of these policies and procedures, the independent testing laboratory shall obtain an equal number of subsamples from different flowers of the hemp plant to ensure representative sampling.
- (c) For purposes of final hemp laboratory testing pursuant to section 22-61m-3 of these policies and procedures, the independent testing laboratory shall obtain samples of the homogenized manufacturer hemp products from each container storing the manufacturer hemp product batch, and from various depths of such containers, to ensure representative sampling.
- (d) For all laboratory testing purposes, a batch of hemp shall contain no more than fifty (50) kilograms.