Testing Method Recommendations
for Short Weight in Frozen Seafood Products on IA 99-47

Date: 9-25-2024

This recommendation is intended to provide supplemental general information to private laboratories on methods of analysis and test portion sizes when testing for short weight adulteration in frozen seafood products. This document does not outline all the analytical methods or worksheet requirements for packages being submitted for FDA review.

Please refer to the current FDA Laboratory Manual, Volume III, Section 7 for comprehensive information on private laboratory package requirements and the review process: https://www.fda.gov/media/73540/download

Analytical Protocol:

- Samples should consist of at least **48 subsamples** (48 units) for official analysis. The relevant CPG is 562.300.
- The recommended method is AOAC 963.18 Net Contents of Frozen Seafoods Drained Weight: Procedure.
- See alternative methods, below, for large subsamples and for seafood frozen together in a block subsamples.
- Percent short weight = [(absolute value of X – Y) / Y] x 100
  Where X = average weight (average of actual weights, i.e. weights determined by lab)
  Y = declared net weight (label statement of Net Quantity of Contents)
- Use balance with readability as outlined in AOAC 963.18, which refers to AOAC 963.26.

In addition to other information mentioned in FDA Laboratory Manual, Vol. III, Sec. 7, include this information in the submission to FDA:

- Number of subsamples analyzed – Regardless of method used, 48 subsamples must be analyzed.
- Name of method (e.g., AOAC Official Method 963.18 Net Contents of Frozen Seafoods, Drained Weight Procedure, etc.)
- Net weight declared on label
- Lab test result (e.g., drained weight determined) for each individual subsample
- Average test result (e.g., drained weight) for all subsamples
- Range of test results/weights (minimum and maximum weights)
- Average percentage under the declared weight (average short weight, across all subsamples), if applicable
- Equipment used for conducting the analysis (balance, timer, etc.)

Large subsamples:
AOAC 963.18 is generally the preferred method. However, larger subsamples may present challenges. For larger subsamples, one option is to use 963.18 and analyze the subsamples in portions to obtain the total deglazed product weight; divide the shrimp, putting one portion at a time on the sieve; however, the entire contents of the package must be deglazed (not a portion) for the analysis. Another option is to utilize 35.1.08 AOAC Official Method 967.13 Drained Weight of Frozen Shrimp and Crabmeat.

Seafood frozen together in block subsamples:
For seafood frozen together in a water glazed block (not fish blocks), the recommended methods are found in NOAA Seafood Inspection Manual, Part 4 Policies, Procedures and Requirements for the Inspection of Fisheries Products on a Lot by Lot Basis. Do not use the calculation in 970.60; rather, use the percent short weight calculation identified above. From NOAA's manual: "AOAC 967.13 and 970.60 Drained Weight of Frozen Shrimp and Crabmeat (Immersion-Thaw Method) - This method is used to determine the net weight of shrimp or other seafood frozen together in a block. The individual pieces are not readily separable in the frozen state. This method is also used for IQF shrimp of such small size that the glaze cannot be removed practically without thawing or partially thawing at least some of the shrimp. It is also used for IQF products which contain clumps or clusters in excess of 15% by weight of the glazed weight. Results of this method are reported as drained weight. Note: Exception to methods 967.13 and 970.60: Nylon mesh bags are used in lieu of a wire mesh basket."

Quality Assurance:
Laboratory must follow the methodology specified in its private laboratory analytical package submission. Any method modifications, or deviations to the cited method, must be explained and validation must be documented.

FDA does not endorse any private laboratory firms, nor requires specific methods to be used for Private Laboratory Analytical Packages (PLAPs). Information herein is provided as a courtesy, but private laboratories are not required to use them. The requirements state the method should be locally validated and should adequately identify and or quantitate the violative analyte(s). The information herein may also provide supplementary sampling, method information and/or sample preparation information to assist private laboratories who are analyzing products being held under Detention Without Physical Examination (DWPE) as part of an Import Alert to assist private laboratories with submitting scientifically sounds PLAPS as testimony pursuant to FD&C Act section 801 and 21 CFR 1.94 or FD&C Act section 422(b) and 21 CFR 1.1107.