

Industry Guidance of Best Practices for Addressing Seafood Fraud

Developed by a Task Force of
Better Seafood Board and
National Fisheries Institute Members

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Introduction

The following guidance, developed by a task force of Better Seafood Board and National Fisheries Institute members, is intended to outline best practices for addressing seafood fraud. The task force was composed of seafood industry members who are actively engaged in the buying, selling and processing of seafood products and are knowledgeable about current practices. The guidance provides information to help ensure that sellers are not committing fraud and helps buyers ensure they are receiving the product they want.

The guidance is organized to address four areas of fraud:

- Products are correctly labeled for weights and counts;
- Products are correctly labeled for identity and species are not substituted in any manner;
- Products are correctly labeled for country of origin; and
- Products adhere to all other labeling laws.

Additional background information is included in the four appendices which address each specific area.

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Industry Guidance of Best Practices for Addressing Seafood Fraud

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Products are correctly labeled for weights and counts

Introduction: According to federal regulations, seafood is sold by weight, with the exception of shellfish which can be sold by weight and/or count. Labels attached to the product must accurately reflect the declared weight or count. Mislabeling for weight, other than what is accurate, is considered a fraudulent activity and lessens the seller's credibility. Examples would include rounding up or adding extra materials to increase the weight.

Laws and Regulations: Laws regarding weights and counts of seafood are contained in the Food, Drug and Cosmetic Act, 21 CFR, Part 101; and in the NIST Handbook 133.

Methods to Ensure Correct Weights and Counts during Processing: Measuring devices, such as scales, should be calibrated regularly to ensure accuracy. Staff should be trained to accurately weigh product before printing and affixing the label. Quality control examples may include:

- *Have a policy statement to always pack the product to at least the declared weight or count.*
- *Have and implement a written net weight control procedure.*
- *Ensure that all relevant staff are trained in the calculation of weights and counts, and the corresponding labeling policy and procedures for weights and counts.*
- *Maintain documentation to demonstrate that in-plant testing has been done and/or net weight calculations are regularly performed to verify products against the label net weight declaration.*
- *Maintain records of operation parameters for glazing process (for frozen products, if applicable).*
- *Follow USDC or AOAC method for deglazing and determining net weight for frozen product.*
- *Use AOAC methods for calibration procedures for thermometers and scales.*
- *If purchasing frozen product with the intent to repack, procedures should include calculating the actual glaze percentage, keeping in mind the amount of glaze will be deducted when determining net weight.*

Methods to Verify Supplier is Delivering Correct Weights and Counts: Examples of verification procedures and controls may include:

- *Clearly state in the product purchasing specifications that net weight must be accurate and verified according to the specific testing methodology. For frozen product, specify that the net weight does not include the weight of the glaze.*
- *Establish procedures for addressing short weight shipments with the supplier.*
- *Upon receipt, samples taken from a shipment should be weighed to verify the net weight listed on the label is an accurate statement of the deglazed weight of the product and documented.*
- *Shipment records and bills of lading should be kept according to regulatory requirements.*

Products are correctly labeled for identity and species and are not substituted in any manner

Introduction: Species of fish can easily be substituted for that listed on the label and not detected by the purchaser due to the similar appearance of the two species. For example, less expensive farm raised tilapia is sometimes substituted for red snapper. This can represent a significant value in economic fraud. In addition, some substitutions may introduce a safety hazard because species-related hazards may be overlooked during a hazard analysis and not controlled with the company's HACCP plan.

Laws and Regulations: Laws regarding the misrepresentation of seafood species are contained in the Food, Drug and Cosmetic Act, 21 CFR, Parts 101 and 123.

Methods to Ensure Correct Species Identity and Labeling: Buyers should be mindful they are receiving the correct product. Controls will be dependent on the form in which the fish is received (e.g., whole, headed and gutted, fileted). Controls for species verification should be in place and may include:

- *Have a policy statement that all fish will be labeled according to the FDA seafood list.*
- *Have and implement a written procedure for ensuring products are correctly identified.*
- *Have and implement written Product Specifications to communicate and verify the labeling and identity for seafood purchased and packaged from overseas and domestic sources.*
- *Ensure that all relevant staff, including sales, are trained in the company policy for species identification.*
- *If processing species that are commonly substituted, consider periodically submitting samples for DNA species analysis or other species identification testing.*
- *Maintain labels of identity for all products in storage even those being staged or in storage, which must match if repacking. This should be part of supply chain monitoring and well documented for traceability. Include product species name and traceability element.*
- *Request a letter of guarantee from the supplier.*

Methods to Verify Supplier is Delivering Correctly Identified Species: Examples of verification procedures and controls may include:

- *Clearly state the species you want to receive in the purchasing specifications (e.g., specify “Atlantic cod” rather than “Cod” or reference the Latin name).*
- *Examine the physical appearance of the fish products upon receipt to verify the product characteristics are as expected (e.g., color, thickness, size of pieces, size of flakes).*
- *Verify the product name upon receipt to ensure it is what was ordered.*
- *Request a letter of guarantee from the supplier.*
- *Conduct random testing for verification when the situation merits and/or for high risk species (e.g., grouper and snapper).*
- *Use the FDA Seafood List as a reference.*

Products are correctly labeled for the country of origin

Introduction: Unprocessed fish and shellfish sold at retail in the United States are required by USDA regulations to have Country of Origin Labeling. In addition, for fish and shellfish, the label must state the method of production whether that is wild caught or farm raised. Customs and Border Protection also has requirements for country of origin declaration, in regulation referenced below.

Origin labeling can be a complex task with fish and shellfish because the fish may be caught in waters of one country with additional processing added in a second country.

Laws and Regulations: Regulations regarding country of origin labeling are contained in Title 7 CFR Parts 60 and 65, USDA Country of Origin Labeling; U.S. Customs and Border Protection Chapter 2, Rules of Origin; and the Federal Trade Commission Made in the USA Standard.

Methods to Ensure Correct Country of Origin Labeling: When packaging with a label or posting signage at point of sale, processors or retailers should have controls and practices in place. Examples may include:

- *Have a policy statement to always label the product according to legal and regulatory Country of Origin Labeling requirements.*
- *Have and implement written Product Specifications to verify the country of origin for seafood purchased and packaged from overseas and domestic sources. Check Supplier Agreements, Food Fraud (e.g., transshipment) or Internal Plans and Traceability programs.*
- *Maintain records showing (demonstrate) that all relevant staff and suppliers are trained in the process and that the process and procedures are implemented*
- *Maintain records showing that relevant staff and suppliers are able to recognize when the country of origin changes due to processing.*
- *Ensure that language used on labels is in compliance with federal regulations. (For example, ocean caught, line caught, farmed in the wild, fresh water caught and fresh land raised are not acceptable terms for a label.)*
- *If conditions exist that could allow for transshipment to avoid duties or regulatory action, then have the ability to do traceability as part of your internal audit program.*

Methods to Verify Supplier is Properly Indicating Country of Origin Designations:

Examples of verification procedures and controls may include:

- *Include country of origin verification in a vendor approval program.*
- *Have the ability to do traceability, including shipping records, from point of origin for both wild caught and farm raised fish and shellfish.*
- *Randomly audit shipping records received from suppliers.*
- *Ensure that language used on labels is in compliance with federal regulations. (For example, ocean caught, line caught, farmed in the wild, fresh water caught and fresh land raised are not acceptable terms for a label.)*
- *Have access to traceability documents such as purchase orders or bills of lading verifying origin.*
- *Compare country of origin label to country of origin stated on the bills of lading or other purchase documentation.*
- *If repacking or offering for retail sale, maintain internal traceability to ensure correct country of origin labeling.*
- *If conditions exist that could allow for transshipment to avoid duties or regulatory action, then have the ability to do traceability as part of your internal audit program.*

Products adhere to all other labeling laws

Introduction: Fish and shellfish are required to adhere to all other labeling laws, along with those mentioned so far. Examples would include misleading claims that the product contains no additives or preservatives as well as including unsubstantiated health benefits of the fish product or sustainability claims.

Laws and Regulations: Regulations regarding labeling laws are contained in the Food, Drug and Cosmetic Act, 21 CFR, Section 101 (which includes the requirements for making health claims); and the Federal Trade Commission Fair Packaging Labeling Act, Parts 500, 502 and 503. In addition, be aware of all applicable state and local laws.

Methods to Ensure Label Statements are Truthful and Not Misleading: When developing the language for the label, members should only state information that is known to be truthful and can be substantiated. Examples of practices or controls to have in place may include:

- *All added ingredients, including added water and added protein, must be safe for use in food and listed on the label.*
- *Have proposed labeling claims reviewed by knowledgeable persons (third party, etc.) for accuracy and remove any misleading information.*
- *Expectations for allowed ingredients should be clearly stated in the product specifications.*
- *Random samples of product are tested for any substances for which a claim of the absence or the addition of that substance would be made on the label. (This should be done by both the buyer and seller.) All labeling claims must be in accordance with FDA labeling regulations. See the labeling code for reference.*

Methods to Verify Supplier is Providing Products with Truthful and Non-misleading Labels: Examples of verification procedures and controls may include:

- *Random samples of product are tested for any substances for which a claim of the absence or the addition of that substance would be made on the label. Require that all added ingredients be listed on the label.*
- *Labels are reviewed any time there is a change in the supplier or source of product. This is covered as part of the initial process under a vendor approval program.*

Expectations for allowed ingredients must be clearly stated in the product specifications.

Appendix 1 – Net Weight Determination for Seafood

(Version 08.01.2016)

Background

The net weight of fish and seafood products is a large factor in determining the price and the credibility of the seller. As a consequence, determining the correct net weight plays a large role in preventing seafood fraud. The following guidance is offered for determining the correct net weight for seafood.

Accuracy of the Scales

An important first step is maintaining accuracy of the scales. Necessary steps include:

- *Calibrating the scales on a routine basis*
- *Maintain a log of when scales are checked for accuracy*
- *Conducting, at a minimum, an annual third party or regulatory calibration, e.g., local weights and measures*
- *Checking the calibration weights for accuracy on a regular basis, following state guidelines*

Weighing Procedures

Weighing Procedures include:

- *Training new employees in scale maintenance and instructing them on the importance of preventing water buildup*
- *Keeping scale surfaces free of water and debris while in operation*
- *Using squeegees, as needed, at every scale station to prevent water and particulate build up*

Quality Control

Quality Control steps include:

- *During quality control inspections on incoming products, checking for excess liquid in containers, especially box-in box-out, where a problem could easily be forwarded to the next step in the chain*
- *Controlling the tare on containers in an ongoing manner*

- *Using proper thawing techniques on refreshed products*
- *Ensuring the recorded weight is used to invoice customers*

Sampling Procedures

It will be necessary to take samples to check the quality, weight and other characteristics of seafoods. When organizing lots for sampling, maintain separate lots for each shipment sorted by product type and form. Some basic sampling plans for seafoods are contained in CFR Title 50, Part 260.61:

<https://www.gpo.gov/fdsys/pkg/CFR-2009-title50-vol7/pdf/CFR-2009-title50-vol7-sec260-61.pdf>.

Other sources of guidance for determining the representative number of samples include:

- National Institute of Science and Technology (NIST) Handbook 133, Chapter 1, Section 1.3, includes how to determine the representative number of samples and Table 2-5 lists the maximum allowable variance (MAV). It may be found at <http://www.nist.gov/pml/wmd/pubs/hb133.cfm>.
- Sampling Plans and Military Standard Sampling Procedures and Tables for Inspection and Attributes, which may be found at https://archive.org/details/MIL-STD-105E_1.

The methodology for checking the net weight is established by AOAC and referenced by the U.S. Department of Commerce/National Marine Fisheries Service Seafood Inspection Program. For methodology, please see Chapter 12 of Part 4, Policies, Procedures and Requirements for the Audit of Fisheries Products on a Lot by Lot Basis: http://www.seafood.nmfs.noaa.gov/pdfs/part_4_audit_of_fisheries_products_on_a_lot_by_lot_basis.pdf

AOAC International Methods

AOAC International (known informally as AOAC) has established methods for determining net weight and net contents. Four of those methods and one combined method include:

AOAC Official Method 963.26 **Net Contents of Frozen Food Containers**

A. Apparatus

- a. *For packages up to 5 lbs. (2268g)*—Use scale of adequate capacity with sensitivity of 0.01 oz. (0.284g).
- b. *For packages over 5 lbs.*—Use scale of adequate capacity with sensitivity of 0.025 oz. (0.71g).

B. Procedure

Set scale on firm support and level. Adjust 0 load indicator or rest point and check sensitivity.

- a. *Unglazed frozen foods*—Remove package from low temperature storage, remove frost and ice from outside of package, and weigh immediately (W). Open package; remove contents, including any product particles and frost crystals. Air-dry empty package at room temperature and weigh (E). Weight contents = $W - E$.
- b. *Glazed frozen foods*—See 963.18(a).

AOAC 963.18 (a) – Net Contents of Frozen Seafoods – Drained Weight– Glazed Seafoods (Spray – Deglazed Method)

This method is used to determine the net weight of packaged, glazed, Individually Quick Frozen (IQF) shrimp and seafood products that can be deglazed without thawing or partially thawing some or all of the product. This method is not used for block-frozen shrimp, nor for shrimp that are of such small size that glaze cannot be removed practically without thawing, or partially thawing, some of the shrimp. This method also is not used for IQF products that contain clumps or clusters in excess of 15% by weight of the glazed weight. **Results of this method are reported as net weight, regardless of the designation “Drained Weight” in the paragraph heading. The product is not thawed before draining; hence it is not a drained weight.**

Note: Exception to method 963.18 (a): For large packages, cases, or containers of shrimp, a representative subsample is removed from the total contents to facilitate deglazing and for purposes of grading the product to the standard.

AOAC Official Method 963.18

Net Contents of Frozen Seafoods Drained Weight Procedure

Set scale (see 963.26A) on firm support and level. Adjust 0 load indicator or rest point and check sensitivity.

- a. *Glazed seafoods*—Remove package from low temperature storage, open immediately, and place contents under gentle spray of cold water. Agitate carefully so product is not broken. Spray until all ice glaze that can be seen or felt is removed. Transfer product to circular No. 8 sieve, 8 in. (20cm) diameter for 0.9 kg (2lb) and 12 in. (30cm) for >0.9kg (2lb). Without shifting product, incline sieve at an angle of 17-20° to facilitate drainage and drain exactly 2 minutes (stop watch). Immediately transfer product to tared pan (B) and weigh. A). Net Weight product = A – B.
- b. *Unglazed seafoods*—See 963.26B.

AOAC 967.13 and 970.60

Drained Weight of Frozen Shrimp and Crabmeat (Immersion-Thaw Method)

These methods are used to determine the net weight of shrimp or other seafood frozen together in a water glazed block (not fish blocks). The individual pieces are not readily separable in the frozen state. These methods are 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 with the spray method. It is also used for IQF products which contain clumps or clusters in excess of 15% by weight of the glazed weight. Results of these methods 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.

AOAC Official Method 967.13

Drained Weight of Frozen Shrimp and Crabmeat

A. Apparatus

- a. *Container*—Wire mesh basket large enough to hold contents of one package and with openings small enough to retain all pieces. Expanded metal test-tube basket or equivalent, fully lined with standard 16 mesh per linear inch insect screen is satisfactory.
- b. *Balance*—Sensitive to 0.25g or 0.01 oz.
- c. *Sieves*—U.S. No. 8, 8 in. (20cm) and 12 in. (30cm) diameter.

B. Determination

Place contents of individual package in wire mesh basket and immerse in > 15L (4 gal.) container of fresh water at $26 \pm 3^{\circ}\text{C}$ ($80 \pm 5^{\circ}\text{F}$) so that top of basket extends above the water level. Introduce water of same temperature at bottom of container at flow rate of 4-11 L (1-3 gal.)/min. As soon as product thaws, as determined by loss of rigidity, transfer all material to 12 in. (30cm) (for package 450g [1 lb.]) or 8 in. (20cm) (for package < 1 lb.) No. 8 sieve, distributing evenly. Without shifting material on sieve, incline sieve to approximately a 30° from horizontal to facilitate drainage. Two minutes from time placed in sieve (stop watch), transfer product to previously weighed pan, and weigh. Weight so found minus weight of pan is drained weight of product.

AOAC Official Method 970.60 **Drained Weight of Frozen Crabmeat**

A. Apparatus

- a. *Balance*—Sensitive to 1 g or 0.01 lb.
- b. *Thermometer*—Accurate in $0\text{-}30^{\circ}\text{C}$ ($30\text{-}80^{\circ}\text{F}$) range.

B. Determination

Weigh bare block free of all wrappings and record weight. Place block in vessel containing amount of fresh potable water at 27°C (80°F) equal to 8 x declared weight. Leave block in water until all ice is melted. Turn block over several times during thawing. The point at which thawing is complete can be determined by probing block apart.

Pour entire thawed test portion into tared 8 in. (20cm) No. 8 sieve. Incline sieve at an angle 17-20 degrees to facilitate drainage, drain exactly 2 minutes (stop watch), and weigh. Subtract tare weight of sieve for thawed drained weight of test portion.

Note: Drained weight can be determined whenever requested, however net weight cannot be determined and certified on all lots. When net weight and drained weight can both be determined and the applicant has requested both, the inspector must draw two separate sets of samples, one set for determining the net weight, and one set for determining the drained weight. The applicant must be advised before sampling that two separate sets of samples will be drawn.

The inspector may refuse to perform the spray-deglaze method of determining net weight on shrimp of such small size that the glaze cannot be removed practically without at least partially thawing some of the shrimp. This is a judgment call to be made by the inspector's supervisor, if necessary. If the applicant has requested a net weight determination (not a drained weight determination), and the inspector believes it cannot

be performed accurately, the applicant must be so advised, and permission received to perform a drained weight determination in lieu thereof.

It is important that the certificate state exactly what “weight” was determined, i.e., net weight, drained weight, or both. Further, the inspector must include the AOAC method(s) used (by identifying the section number) on the certification along with the number of the edition of the AOAC manual used.

(Source: PART 4 – Policies, Procedures and Requirements for the Audit of Fisheries Products on a Lot by Lot Basis, Chapter 12, National Marine Fisheries Service, National Oceanic and Atmospheric Administration

http://www.seafood.nmfs.noaa.gov/pdfs/part_4_audit_of_fisheries_products_on_a_lot_by_lot_basis.pdf)

Exemptions from Net Weight Labeling

Wrapped fish fillets of non-uniform weight and intended to be marked with the correct weight at or before the point of retail sale in an establishment other than that where originally packed shall be exempt from the requirement of section 403 (e) (2) of the Act (Federal Food, Drug and Cosmetic Act) during introduction and movement in interstate commerce and while held for sale prior to weighing and marking, provided that:

- The outside container bears a declaration of the total net weight, and
- The individual packages bear a conspicuous statement “to be weighed at or before time of sale” and a correct statement setting forth the weight of the wrapper.

Provided further, that:

- It is the practice of the retail establishment to weigh and mark the individual packages with a correct net-weight statement prior to or at the point of retail sale. A statement of the weight of the wrapper shall be set forth so as to be readily read and understood, using such term as “wrapper tare ___ ounce”, with the blank being filled in with the correct average weight of the wrapper use. Protective glazing must be considered when determining the “net weight” and included in the tare.
- The act of delivering the wrapped fish fillets during the retail sale without the correct net-weight statement shall be deemed an act which results in the product being misbranded while held for sale. Nothing in this paragraph shall be construed as requiring net-weight statements for wrapped fish fillets delivered into institutional trade provided that the outside container bears the required information.

Regulation by the States

Each state has comprehensive weights and measures regulations and employs inspectors who monitor and enforce these regulations where seafood is sold. Federal regulations, including those of FDA and USDA, pre-empt state authority. Most states adopt the National Conference on Weights and Measures (NCWM) standards that are published in NIST handbooks.

Although there is some uniformity across states in seafood weights enforcement, each state decides:

- *To adopt NCWM standards in NIST Handbooks 130 and 133*
- *The frequency of testing (some states don't test for ice glazing),*
- *Its enforcement actions*

Appendix 2 - Seafood Names

(Version 12.04.2015)

Seafood Names – a Bit of Background

With such a wide range of seafood species available, how does one find the answers to correctly name seafood species? In the U.S. the seafood name “dictionary” is maintained by the U.S. Food and Drug Administration (FDA). FDA has developed the Seafood List to provide consistent recommendations on market names for seafood sold in the U.S.

Before looking at FDA’s Seafood List a bit of background is necessary to understand why naming seafood can be so confusing.

Types of Fish Names

Each individual seafood species will always have at least two names, and often times three names, so it is important to know what name to use when labeling your products. Fishery experts assign two names to all seafood species, the Scientific name and the Common name. FDA will assign the third name – the acceptable market name.

Scientific Name

The Scientific Name is the Latin name that is unique to each individual species. The Scientific Name is assigned by fish scientists (ichthyologists) as they identify new species to define the taxonomy of the new species. The Scientific Name is comprised of two Latin words – the first word designates the genus categorization and the second identifies the species designation. Many fish that are related can share a genus name but only a single species can have a specific genus-species combination. The Scientific Name for an individual fish may actually change over time as the science community learns more about different families and re-categorizes species. Scientific Names may often be used by the seafood community but they are not acceptable names for menus or food labels as most consumers do not recognize the scientific name. Scientific names may be useful to know when working with your suppliers and customers.

Common Name

The Common Name is a unique, non-scientific name used by fish scientists to describe seafood species. Seafood species that are related will have similar names such as Coho Salmon and Sockeye Salmon or Atlantic cod and Pacific cod. Common names

will vary around the world because they will be in the language of the country. For example Pacific cod is known as Bacalao del Pacifico in Spain.

While common names may accurately describe species, they may not always have great market appeal with consumers. For example the Common Name for the species *Epinephelus tauvina* is Greasy Rockcod. FDA's Acceptable Market Name for this fish is Grouper.

What Seafood Name Should I Use?

In the United States the U.S. Food and Drug Administration (FDA) provides guidance on what to call seafood species. FDA's laws and regulations require that all food (including seafood) be labeled with a suitable statement of identity. FDA recognizes that the Common Name for a seafood species may be used to label fish and shellfish because it is easily recognizable and understandable by the consumer. FDA also identifies a third name – the Acceptable Market Name – as a suitable statement of identity.

Acceptable Market Name

FDA has identified Acceptable Market Names for labeling species. Sometimes the Common Name will be identified as the Acceptable Market Name. Other times the Acceptable Market Name may be a simplified version of the Common Name. In some cases the Acceptable Market Name is defined by a specific U.S. law or regulation. An Acceptable Market Name has been established to provide a non-misleading name for each of the species listed in the Seafood List and has the advantage by not having to remember a unique name for each and every species. To prevent a misleading name that may confuse the consumer FDA recommends that the Acceptable Market Name or the Common Name be used to label seafood.

Some general principles for how FDA establishes an Acceptable Market Name are:

- the name has national recognition
- the name is commonly used by consumers
- the name cannot be the same as a unrelated species (this is why FDA does not recognize Black Cod as an Acceptable Market Name for sablefish (*Anoplopoma fimbria*) because this fish is not related to other cods)
- any geographical reference must be accurate
- a fanciful descriptor cannot “enhance” the perceived value of a fish (for example using “Golden” in a name implies the fish is a higher quality than fish with other color descriptors)

These principles can be used if a species that you sell isn't included in FDA's Seafood List.

Please note that some acceptable market names on the Seafood List are marked with an asterisk (*) meaning these market names for the species are required by regulation. Quite often, these acceptable market names are recognized by U.S. consumers as referring to a group of similar, related species. Examples include "tuna," "salmon" and "grouper." Some common names that are prohibited by law and cannot be used as market names are marked with a dagger (†) symbol.

More information on Acceptable Market Names is available in FDA's guidance document [The Seafood List – FDA's Guide to Acceptable Market Names for Seafood Sold in Interstate Commerce](#).

Using FDA's Seafood List

FDA's Seafood List is maintained on FDA's website and is updated twice a year. There are two ways to use the Seafood List:

- viewing the entire List
- using the search functions

Viewing the Entire List

The entire Seafood List with over 1800 seafood species listed is available for viewing at <http://www.accessdata.fda.gov/scripts/fdcc/?set=seafoodlist>. The default view is the list organized alphabetically by the Scientific Name. Clicking on the column headings ("Type," "Acceptable Market Name(s)," "Common Name," "Scientific Name") will reorganize the list in alphabetical order based on the chosen heading. The entire list may also be downloaded into an Excel spreadsheet for offline use.

Using the Search Function

The search function of the Seafood List allows for easy searching by Latin Name, Common Name or Acceptable Market Name. This is a quick way to check to see if a name will be acceptable to use. For example a search for "Chilean seabass" results in 2 different fish species that have the Acceptable Market Name of "Chilean seabass". Both the Patagonian Toothfish (*Dissostichus eleginoides*) and Antarctic Toothfish (*Dissostichus mawsoni*) can be called "Chilean seabass" or "toothfish". And there is the option to use the common name as well so *Dissostichus eleginoides* can be called Patagonia Toothfish and *Dissostichus mawsoni* can be called Antarctic Toothfish. Further information on each species can be found by clicking on the highlighted Scientific Name. This resulting page lists the Acceptable Market Name(s), the Common

Name and provides links to additional information about the species such as DNA information, photos of the fish and taxonomic hierarchy. The page will also list other names – Vernacular Names – that may be associated with the species. FDA provides the Vernacular Names as reference to names that may have been used regional for the species, but does not consider the Vernacular Names as Acceptable Market Names.

Appendix 3 – Country of Origin Labeling

(Version 04.13.2016)

Background

Country of Origin Labeling (COOL) is required under several laws. The Tariff Act of 1930 mandates country of origin labeling for all imported products, and the 2002 and 2008 Farm Bills and the 2002 Supplemental Appropriations Act mandate COOL labeling for certain agricultural commodities, including seafood. The intent of the laws was to provide consumers with additional information on which they can base their purchasing decisions. Fish and shellfish were added to COOL in 2004.

Other U.S. laws also have an indirect mandate on COOL statements. FDA's Food, Drug, and Cosmetic Act addresses misbranding of food products and the Federal Trade Commission (FTC) Act addresses false or misleading claims that a product is of U.S. origin.

USDA COOL

The Agricultural Marketing Service (AMS) of USDA acts as the regulatory agency for USDA COOL requirements as mandated by the Farm Bills. The intent of these regulations is to define when a product may be labeled as "Product of the U.S.(A.)" and require COOL labeling for products sold at retail.

"Any person" subject to be licensed as a retailer under the Perishable Agricultural Commodities Act (PACA) of 1930 must label certain commodity products for the country of origin. A "retailer" is defined as a firm with an invoice cost of fresh and frozen fruits and vegetables that exceeds \$230,000 annually. Food service establishments, seafood shops and retailers selling less than the requisite amount of fruits and vegetables are exempt.

The following commodities are covered by USDA COOL:

- Fish and shellfish
- Fresh and frozen fruits and vegetables
- Meat muscle cuts and ground meats: lamb, chicken and goat (beef and pork were repealed in late 2015)
- Peanuts, pecans, macadamia nuts
- Ginseng

Provisions for fish and shellfish

The Final Rule definitions for fish and shellfish include:

- *Farm-raised fish and shellfish*
- *Wild fish and shellfish*
- *Commingled covered commodities*
- *Pre-labeled*
- *Processed food items*

Farm-raised and wild fish

Farm-raised fish and shellfish are covered and defined by regulation to include:

- Those harvested in controlled environments
 - Including ocean-ranched (e.g., penned) fish
 - Including shellfish harvested from leased beds that have been subjected to production enhancements such as providing protection from predators, the addition of artificial structures, or providing nutrients
- Fillets, steaks, nuggets, and any other flesh from a farm-raised fish or shellfish

Wild fish and shellfish are covered and defined by regulation to include:

- Naturally-born or hatchery-originated fish or shellfish released in the wild, and caught, taken, or harvested from **non-controlled waters or beds** (An example is net-gathered fish.)
- Fillets, steaks, nuggets, and any other flesh from wild fish and shellfish

Commingling

When commingling non-processed fish and/or shellfish for retail sale that are sourced from different origins, the declaration of origin shall indicate all of the countries from which the product contained in the package are sourced as well as the method of production (farmed or wild). Processed food items are exempt from the regulations.

Pre-labeled

Pre-labeled is defined by the regulation as a covered commodity that has the commodity's country of origin and the name and place of business (at a minimum, the city, state or other acceptable locale designation) of the manufacturer, packer, or distributor on:

- The covered commodity itself,
- On the package in which it is sold to the customer, or
- On the master shipping container.

Processed food items

Processed food items are exempt from USDA COOL labeling. Processed food items include those with a change of character (except for filleting) or combined with another food component. Substantial transformation (change in character) occurs when a new and different article of commerce emerges from a process with a new name, character, or use different from that possessed by the article prior to processing.

Examples of a change in character include:

- Cooking (e.g., frying, broiling, grilling, boiling, steaming, baking, roasting) Examples include cooked shrimp, canned tuna, canned salmon, canned oysters, crab legs, and seafood medley.
- Curing (e.g., salt curing, sugar curing, drying) Examples include pickled herring.
- Smoking (hot or cold) Examples include smoked trout, smoked salmon, salmon jerky, and fish jerky.
- Restructuring (e.g., emulsifying and extruding, compressing into blocks and cutting into portions).

Examples of exempted seafood products as a result of being combined with another food component include stuffed flounder, breaded tilapia, salmon burgers, clams or mussels in tomato sauce, and Cajun catfish. Value added products are those that have one or more additional preparation step(s) that changes the nature of the product adding value at the time of sale. Examples include seafood medley, coconut shrimp, soups, stews and chowders, sauces, pates, marinated fish filets, crab salad, shrimp cocktail, and breaded shrimp.

Determining Country of Origin Labeling

The origin of the product must be determined, whether it is of U.S. origin, foreign origin, or multiple countries of origin.

When the fish or shellfish is imported and not substantially changed in the United States, another country of origin would be stated on the label such as "Product of Country X." The label should state "From Country X, Processed in the U.S." or something similar when the product has been imported AND then has been substantially transformed in the United States.

The U.S. country of origin label would apply only for:

- Farm-raised fish and shellfish hatched, raised, harvested, and processed in the United States,
- Wild fish and shellfish harvested in waters of the United States or by a U.S. flagged vessel, and
- Fish and shellfish that have **not** undergone substantial transformation **outside** the United States.

Method of Production

In addition to requiring country of origin, the USDA COOL regulation also requires that the “method of production” be included for fish or shellfish. **Fish and shellfish must list both the country of origin AND method of production on the label.**

The method of production refers to the manner in which the fish are raised in either controlled or non-controlled environments.

Acceptable terms on the label for method of production include:

- Farm-raised
- Farmed
- Wild-caught
- Wild

Terms not acceptable on the label for method of production include:

- Ocean caught
- Line caught
- Farmed in the wild
- Fresh water caught
- Fresh land raised

COOL Final Rule References (Final Rule 7 CFR Part 60)

- Farm-raised fish and shellfish – CFR Part 60.106
- Wild fish and shellfish – CFR Part 60.133
- Commingled Covered Commodities – CFR 60.103
- Pre-labeled – CFR Part 60.118
- Processed Food Item – CFR 60.119

U.S. Customs Rules of Origin

Processed food items are generally exempt from USDA AMS COOL regulations but are not exempt from U.S. Customs requirements. All products, including processed foods that enter the United States as such must be marked with the Country of Origin.

Processed foods made in the United States may be exempt from COOL requirements but Customs marking requirements will apply if they are processed in the United States from imported ingredients. If the covered commodity undergoes a substantial transformation after arriving in the United States, then the foreign origins would not need to be marked. If the product is simply repackaged, the country of origin at the time of import would need to be stated on the label.

Example: Alaska flounder shipped to Thailand for filleting becomes a product of Thailand. Russian sockeye salmon filleted in the United States may be labeled without any customs requirement for foreign origin declaration, but would still be subject to USDA AMS COOL labeling requirements, e.g. "Product of Russia, Processed in USA".

U.S. Customs regulations on what constitutes "substantial transformation" can be complex. The agency maintains a searchable database on official rulings. Companies are encouraged to understand past rulings for seafood products. The database is available at: <http://rulings.cbp.gov/>.

Some examples of past rulings related to substantial transformation include:

Product	Processing Steps Taken	Ruling by U.S. Customs	Reference
Headed and gutted fish	Thawing, skinning, boning, trimming, freezing and packaging to become quick-frozen fillets	Ruled as substantial transformation because of a change of the appearance and quality	CROSS Ruling: <u>NY 851778</u>
Shrimp	Beheading, peeling, de-veining, freezing, repackaging	Not a substantial transformation	CROSS Ruling: <u>N247131</u>
Shrimp	Peeling, de-veining and repackaging foreign-origin shrimp	Not a substantial transformation	CROSS Ruling: <u>HRL 731472</u>

Product	Processing Steps Taken	Ruling by U.S. Customs	Reference
Shrimp	Freezing and packaging headed (without heads) shrimp	Not a substantial transformation	CROSS Ruling: HQ 563123
Crab	Thawing, sorting, blending with domestic product, canning and pasteurization	Not a substantial transformation	CROSS Ruling: HQ 732337
Crab	Crab meat was not largely or wholly removed from the shell	Not a substantial transformation	CROSS Ruling: HRL 109504
Crab	Blending foreign crab meat with U.S. crab meat	Not a substantial transformation	CROSS Ruling: HQ 561208
Crab	Cleaning, cutting the legs from the body, boiling, blast freezing and packaging	Not a substantial transformation	CROSS Ruling: HQ 560322
Calamari (squid)	Imported frozen, raw calamari (squid) tenderized in the United States	Not a substantial transformation	CROSS Ruling: N107816

FTC “Product of USA” or “Made in the USA”

The use of “Product of USA” or “Made in the USA” statements are subject to Federal Trade Commission (FTC) rules. According to the FTC and “Made in the USA” standards, the product must “all or virtually all” be made in the USA, with only a negligible amount of foreign material ingredients.

Claims for “Made in the USA” can be either express or implied. The Federal Trade Commission considers that, “depending on the context, U.S. symbols or geographic references (for example, U.S. flags, outlines of U.S. maps, or references to U.S. locations of headquarters or factories) may convey a claim of U.S. origin either by themselves, or in conjunction with other phrases or images. The Commission is not likely to interpret the mere listing of a company’s U.S. address on a package label in a

non-prominent way as a claim of U.S. origin.” (<https://www.ftc.gov/tips-advice/business-center/guidance/complying-made-usa-standard>)

Additional information on the FTC compliance guidelines can be found at: <https://www.ftc.gov/tips-advice/business-center/guidance/complying-made-usa-standard> and <https://www.ftc.gov/tips-advice/business-center/guidance/complying-made-usa-standard>.

FDA Geographical Label Designations

The U.S. Food and Drug Administration allows the use of geographical label designations as long as they are truthful representation of the origins of the food. FDA regulations 21 CFR 101.18 defines the **misbranding** of food as:

(c) Among representations in the labeling of a food which render such food misbranded is any representation that expresses or implies a geographical origin of the food or any ingredient of the food except when such representation is either:

(1) A truthful representation of geographical origin.

(2) A trademark or trade name provided that as applied to the article in question its use is not deceptively misdescriptive. A trademark or trade name composed in whole or in part of geographical words shall not be considered deceptively misdescriptive if it:

(i) Has been so long and exclusively used by a manufacturer or distributor that it is generally understood by the consumer to mean the product of a particular manufacturer or distributor; or

(ii) Is so arbitrary or fanciful that it is not generally understood by the consumer to suggest geographic origin. (e.g., “Moon Pie”)

(3) A part of the name required by applicable Federal law or regulation.

(4) A name whose market significance is generally understood by the consumer to connote a particular class, kind, type, or style of food rather than to indicate geographical origin. (e.g., “Country Fried Fish”)

Appendix 4 – Label Claims

(Version 08.01.2016)

Introduction

Labels provide needed information for consumers to make informed decisions. U.S. laws, as well as individual state laws, mandate certain information that must be on labels. Additional information may be provided on the product label, but it is important that all label statements and claims be truthful and not misleading.

Labeling requirements are defined by:

- Fair Packaging and Labeling Act
- Food Drug and Cosmetic Act
- FDA regulations
- State laws and regulations

In the United States, the federal Food and Drug Administration (FDA) regulates food labels and labeling.¹ FDA has also taken the position that information about a food conveyed on a website, under defined circumstances, may be regulated as labeling rather than considered as advertising. By listing a seller's website on the label, all statements made on the website are therefore considered to be part of the label.²

For example, if a company promotes a food on its website and allows customers to order directly from the website, the website information would likely be considered as labeling. In contrast, information presented on a third-party website and similar to what FDA has generally considered as advertising would not be considered to be labeling.

¹ Note: Siluriformes fish (catfishes) are under the regulatory jurisdiction of USDA Food Safety and Inspection Service (FSIS) and may have different labeling requirements. For example, FSIS safe handling instructions and establishment number and inspection legend will be required on master packaging for food service items and individual packaging for retail sales. The USDA FSIS labeling requirements are defined by the Federal Meat Inspection Act and FSIS regulations.

² FDA has stated "in certain circumstances, information about FDA-regulated products that is disseminated over the Internet by, or on behalf of, a regulated company can meet the definition of labeling in section 201(m) of the FDCA" in its response from the Associate Commissioner for Policy to the Washington Legal Foundation regarding a petition denial. <https://www.regulations.gov/document?D=FDA-2001-P-0321-0003>

Required Label Elements

Food label regulations are enforced by FDA and dictate the type of information that must be on the label and where the label can be placed on the package. In addition, some states may enforce labeling laws which in some cases may require additional components. Before printing labels, make sure you have met all labeling requirements. All food packages must display the following information:

- Name of the food
- Net quantity of contents
- Name and location of the food business
- List of ingredients including allergens in accordance with Food Allergen Labeling and Consumer Protection Act (FALCPA) requirements, and
- Nutrition Facts Panel (for packaged products sold at retail).

It is common to have two distinct label areas on the container, the principal display panel (PDP) and the information panel that includes all of the required information. The name of the food and the net quantity of contents are required to be on the principal display panel. The remaining three items may be provided on the information panel.

The net quantity statement gives the actual weight, volume, or number of pieces of food in the package and should be located on the bottom 30 percent of the PDP. Weights and volumes must be displayed in both U.S. and metric units--for example, 1 lb 8 oz (680 g) or 1 gal (3.79 L).³

Product Name and Ingredient Statements

Product names and ingredients listed on the label must fall within guidelines established by FDA.

- Guidance from FDA on food labeling and naming is available at:
<http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm064872.htm>
- Guidance from FDA on ingredient lists is available at:
<http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm064880.htm>
- All ingredients, even additives and dips such as phosphates and other moisture

³ FDA regulations allow for an exemption for net weight labeling of products with non-uniform weight. More information on this exemption is provided in the Appendix for Net Weight Determination for Seafood.

retention agent (MRA) ingredients, must be listed in the ingredient statement.

Some examples of fish mislabeling related to required label elements, according to FDA, include:

- *Inaccurate food weight or including the ice glaze as part of the weight*
- *Undeclared preservatives or color treatments*
- *Undeclared moisture retention agents (MRAs)*
- *Undeclared added water*
- *Species substitution*
- *Labeling salad containing surimi as “crab” salad*
- *Short-weights*
- *Color enhancements*

Unfortunately, the principal reason for mislabeling is financial gain, i.e., economic fraud. If an acceptable market name is not used, FDA may consider the product mislabeled. Product labeling and invoices should be reviewed regularly for accuracy to monitor and prevent fraud.

The FDA *Seafood List* found at

<http://www.accessdata.fda.gov/scripts/fdcc/?set=seafoodlist> lists acceptable market names for fish sold in interstate commerce and *Appendix 2 - Seafood Names* provides guidance on using the list.

Voluntary Label Statements and Claims

Each statement or claim used should be truthful and not misleading to avoid misbranding the product. Some claims, such as “low fat” have specific regulatory requirements while other claims, such as “raised without antibiotics” or “chemical free,” should be evaluated so as to be truthful, not misleading and not disallowed. Examples of potentially misleading voluntary label statements and claims include:

Fresh

Care should be taken when using the term “fresh.” The term implies the food is unprocessed and

- In a raw state
- Has not been frozen or subjected to any form of thermal processing, and

- Has not been subjected to any other form of preservation, e.g., smoking or pickling.

The terms “fresh frozen” or “frozen fresh” may be used when the food was quickly frozen while still fresh. These terms can be used on retail packaging for frozen seafood as long as they can be substantiated by processing guidelines and documented.

“Previously frozen” refers to product that has been frozen and thawed and then sold in a thawed state. In this case, it must be labeled as “previously frozen.” The use of these terms are regulated by 21 CFR (Code of Federal Regulations) 101.95 may be found at: <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/cfrsearch.cfm?fr=101.95>.

All Natural

The “all natural” claim can be confusing for both marketers and consumers because the phrase has not been defined by FDA for regulatory purposes. However, FDA adheres to the policy that the agency will not object to the use of “all natural” if the food does not contain:

- Added color (of any type, whether natural or artificial)
- Artificial flavors, or
- Synthetic substances

FDA’s definition does not include the words “minimally processed” but the USDA FSIS definition includes the phrase “the product and its ingredients are not more than minimally processed.”

Fat Free or Low Fat

Low fat claims in food are defined by regulation (21 CFR 101.62). “Low fat” is considered to be an expressed Nutrient Content Claim while “healthy, contains 2 g of fat” is considered an implied Nutrient Content Claim. In order to meet fat content claims, the following criteria must be met, according to 21 CFR 101.62:

The terms “fat free,” “free of fat,” “no fat,” “zero fat,” “without fat,” “nonfat,” “trivial source of fat,” “negligible source of fat,” or “dietarily insignificant source of fat” may be used on the label or in labeling of products, provided that:

- (i) The product contains less than 0.5 gram (g) of fat per reference amount customarily consumed and per labeled serving size or, in the case of a meal-type product or a main-dish product, less than 0.5 g of fat per labeled serving size;

- (ii) The product contains no added ingredient that is a fat or is generally understood by consumers to contain fat unless the listing of the ingredient in the ingredients statement is followed by an asterisk that refers to the statement below the list of ingredients, which states: “Adds a trivial amount of fat,” “adds a negligible amount of fat,” or “adds a dietarily insignificant amount of fat”; and
- (iii) If the product meets these conditions without the benefit of special processing, alteration, formulation, or reformulation to lower the fat content, it is labeled to disclose that fat is not usually present in the food (e.g., “broccoli, a fat free food”).

Omega-3

Care should be taken when including implicit nutrient content claims. A statement such as “contains DHA and EPA Omega-3” implies that the food is a good source of omega-3 fatty acids and is not allowed. Rather, a statement such as “contains X mg of DHA and EPA Omega-3s” is stating a fact and not a nutrient content claim, and therefore allowed.

Chemical-Free

The term “chemical free” is a misleading claim and should not be used on a food label because it implies a product is better than another when all food products are made up of chemicals of some sort. This mislabeling claim is sometimes used to imply that a non-phosphate blend used to retain moisture is preferred over using a phosphate blend. Non-phosphate blends are added ingredients and are required to be listed in the ingredient statement. Labels may cite specific chemicals or additives that are purposely not included, e.g. “no MSG.”

No Preservatives

A label may not claim that a food item “contains no preservatives” or is “preservative free” if it does, in fact, contain “any chemical that, when added to food, tends to prevent or retard deterioration thereof, but does not include common salt, sugars, vinegars, spices or oils extracted from spices, substances added to food by direct exposure thereof to wood smoke, or chemicals applied for their insecticidal or herbicidal properties,” according to 21 CFR 101.22, which may be found at <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/cfrsearch.cfm?fr=101.22>. All food ingredients should be stated on the label. Some food ingredients may perform different functions depending on how they are used. A “No preservative” claim should be carefully considered.

No Antibiotics or Antibiotics Free

The statement “raised without antibiotics” would be appropriate for aquacultured species only. A statement claiming “no antibiotics” or “antibiotics free” would be misleading for a food item for which no antibiotics have been approved (e.g., shrimp) or are not used as with wild caught species. In this case, for the statement for shrimp to not be misleading, it would need to state that the product was “raised without antibiotics” qualified by a statement such as “FDA has not approved antibiotics for use in raising shrimp.”

Phosphate Free

Phosphates are used in foods as direct additives to retain moisture and protect the flavor. All ingredients must be stated on the label. A phosphate-free claim on a seafood product would be misleading because seafood naturally contains phosphates. A non-misleading claim would be “No added phosphates.” Proper labeling for non-phosphate blends would fall under the section for “chemical free labeling.”

Sustainably Raised or Harvested

Sustainability is a subjective term. When making a claim of sustainability, it must be supported by documentation or certification. Some independent groups have developed standards for sustainability certification for seafood.

Nutrient Content Claims

Nutrient content claims are covered by FDA in 21 CFR 101.13 which may be found at: <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?fr=101.13>.

FDA guidance about label claims for conventional foods and dietary supplements may be found at:

<http://www.fda.gov/food/ingredientspackaginglabeling/labelingnutrition/ucm111447.htm>.

This information covers:

- Health claims, including Nutrition Labeling and Education Act Authorized Health Claims, Health Claims Based on Authoritative Statements and Qualified Health Claims
- Nutrient Content Claims
- Structure Function Claims and Related Dietary Supplement Claims

Additional guidance may be found in Guidance for Industry: A Food Labeling Guide (10. Appendix B: Additional Requirements for Nutrient Content Claims) at:

<http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm064916.htm>.

Made in the USA

The use of “Product of USA” or “Made in the USA” statements are subject to Federal Trade Commission (FTC) rules. According to the FTC and “Made in the USA” standards, the product must “all or virtually all” be made in the USA, with only a negligible amount of foreign material ingredients.

Claims for “Made in the USA” can be either expressed or implied. The FTC considers, “depending on the context, U.S. symbols or geographic references (for example, U.S. flags, outlines of U.S. maps, or references to U.S. locations of headquarters or factories) may convey a claim of U.S. origin either by themselves, or in conjunction with other phrases or images. The Commission is not likely to interpret the mere listing of a company’s U.S. address on a package label in a non-prominent way as a claim of U.S. origin.” (<https://www.ftc.gov/tips-advice/business-center/guidance/complying-made-usa-standard>)

Additional information on the FTC compliance guidelines can be found at:

<https://www.ftc.gov/tips-advice/business-center/guidance/complying-made-usa-standard> and <https://www.ftc.gov/tips-advice/business-center/guidance/complying-made-usa-standard>.