

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

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ORGANIZATION



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Agenda Item 11

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**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX COMMITTEE ON FISH AND FISHERY PRODUCTS**

Twenty-fifth Session

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**DISCUSSION PAPER ON THE PROCEDURE FOR THE INCLUSION OF ADDITIONAL
SPECIES AND ON LABELLING REQUIREMENTS RELATED TO THE "NAME OF THE
PRODUCT" IN CODEX STANDARDS**

(Prepared by France)

The mandate from the CCFPP

At its 24th Session, the Codex Committee on Fish and Fishery Products discussed the topic of including additional species in the list of the standard for canned sardines and sardine-type products. The discussions revealed that some species of fish had different names that were determined by the form of processing and corresponding Codex standard. This could result in confusion in product labelling, which was a general problem that affected not just the standard for canned sardines. The Committee agreed that the French Delegation would prepare a discussion paper considering the issues of labelling requirements concerning the name of the food, in view of the need for consistency across Codex standards and the need to re-examine the procedure for the inclusion of additional species.

Introduction

In its section 11.2 "Responsible international trade", FAO's Code of Conduct for Responsible Fisheries calls for the liberalization of trade in fish and fishery products and for the elimination of unjustified barriers, in accordance with the principles laid down in the agreements of the World Trade Organization. But such liberalization can only take place in a framework of transparency and enhanced information to consumers, particularly as regards product labelling.

The potential reward from including additional species or families of species in a Codex standard is of course linked to the international recognition of the product in question, and it is perfectly legitimate for a country to want to derive maximum benefit from its resources and expertise. This recognition is associated primarily with the commercial name of the product and authorization to use a name with established international repute is therefore an important asset and a declared objective. However, there are many species seeking value-enhancing appellations, but such appellations are relatively few. Labelling provisions need therefore to be sufficiently clear to avoid misleading consumers and creating conditions of unfair competition in international trade.

The product candidate for inclusion needs to have characteristics that are similar to those of products already covered by the standard, which calls for an inclusion procedure that is based on sufficiently discriminating evaluation criteria.

This discussion paper begins by looking at the existing risks of confusion over product names in current Codex standards. It then examines the procedure for the inclusion of additional species in standards and makes proposals for improving the accuracy of information provided in the "name of the food" section of the standards and the effectiveness of the inclusion procedure.

1. The "name of the food" section in Codex standards - risks of confusion

We need to begin by looking at all Codex standards relating to fishery products in order to pinpoint and examine the sources of confusion and to suggest solutions. We have therefore compiled a comparative table of sections 2.1 "Product definition", 2.3 "Presentation" and 6. "Labelling: name of the food", taken from existing or draft standards (cf. Annex 1).

We can distinguish two types of standard:

* Those dealing with major groups of marine animals without distinction of species. These define the general characteristics of products according to the form of processing, e.g. frozen fish fillets, canned finfish.

* Those defining a combination of species/processing, e.g. canned sardines and sardine-type products, canned tuna and bonito, frozen shrimps, salted herrings and sprats.

We can see that the risks of confusion lie basically in the standards that cover a limited number of species.

Thus the "X sardine" appellation in the standard for canned sardines and sardine-type products is incoherent with labelling provisions in other standards or draft standards. For example, *Sprattus sprattus* and *Clupea harengus* are "sprat" and "herring" in the draft standard for salted Atlantic herring and salted sprats, but are X sardine when canned. *Clupea bentincki* is eligible for nomination as X sardine, but could one day be presented as a herring in the draft standard for salted herrings and sprats, as there are likely to be in the world other salted products derived from *Clupeidae* in comparable conditions.

Engraulis mordax, *E. anchoita* and *E. ringens* are considered anchovies in the draft standard for dried salted anchovies, but as X sardine when canned; on the other hand, *Engraulis encrasicolus* anchovy is not considered a canned sardine-type product. There are plants in Europe canning anchovies in oil, in the same way as sardines, and producing an item valued by consumers as canned anchovies; it would be unthinkable to market these as sardines, and marketing them as "sardine-anchovies" would lead to confusion. Yet, where such a request to be made, application of the inclusion procedure would almost certainly result in this species being included in the list of sardine-type products. As matters presently stand, the production of canned *Engraulis encrasicolus* anchovies should logically be covered by the standard for canned finfish, as the standard covers all species of fish that are not covered by other standards for canned products. In this case, the name given to the product is the *common or usual name of the species used in accordance with the laws and practices of countries where the product is sold, so as not to mislead the consumer*.

The same reasoning could be applied to fish belonging to the *Scombridae* family but not in the list of species in the standard for canned tuna and bonito. These products could in theory be covered by the standard for canned finfish; yet many countries are probably using the terms "tuna" or "bonito" as the normal names for these fish. This can result in confusion and unfair competition.

The standard for salted and dried salted *Gadidae* avoids these problems as it applies to the whole family, so there is no need for a procedure to include additional species. However, the labelling section specifies that the name of the food should include the name of the fish species. Although not actually specified in the standard, we can suppose that this means the *common or usual name of the species used in accordance with the laws and practices of the countries in which the product is sold*. This provision is a good way of limiting consumer confusion in the country importing the product, bearing in mind that consumer perception of species identity can vary widely from one country to another.

There is less risk of ambiguity of name in standards other than for fish: shrimps are always called shrimps, whether frozen or canned; in the standards for canned crab meat, frozen squid, lobster or other crustaceans, the products are clearly defined and do not feature in several standards under different names.

However, the increase in number of species of fish, crustaceans and molluscs being traded internationally calls for better product identification throughout the Codex standards.

2. The procedure for including additional species

The lists of species (or of families in standards for shrimps, crab meat, lobster and squid) implies the existence of a procedure to include additional species or families in the relevant standard.

2.1. Description of the present procedure

The CCFFP applies the procedure set out in document CL 1995/30-FFP, whereby a country wishing to propose the inclusion of a new species should provide the Committee with:

- an attestation from an appropriate institution regarding the scientific name and other taxonomic information for the species in question;
- data on existing and potential resources, and on derived products;
- the form in which the product will be marketed and the proposed processing technology for each form of presentation (providing samples);
- reports from at least three laboratories selected among those nominated by the Committee, stating that the organoleptic properties of the new species, after processing, conform with those of the processed species currently included in the pertinent standard.

The first three points are factual and unrelated to product quality. However, the fourth requirement implies a sensory evaluation that needs to be based on criteria of quality.

Document CL 1995/30-FFP also specified that "to develop such a procedure, the Committee should appoint a working group on this subject, which shall formulate criteria and parameters, as well as scoring systems, to be used by the laboratories nominated by the Committee in the evaluation of new species and products derived therefrom".

This proposal of the Committee does not appear to have been acted upon, and the evaluation criteria were not carefully defined.

2.2 Do the revised Codex standards provide quality evaluation criteria that are sufficiently discriminating for application of the procedure?

To answer this question, we need to review the way in which all the standards for fish and fishery products were revised during the 1990s.

2.2.1 The revision approach

The approach adopted for the revision process was governed by the need to simplify standards and to facilitate their application in international trade. The process was guided by two major principles:

a) Grouping standards and simplifying their scope:

The collection of old standards included a large number of "specific" standards whose scope was limited to one combination of species (or limited group of species)/method of processing. Some of the revised standards grouped species together and adopted a more general scope oriented more towards defining the end product than the raw material for its production. For example, the standards for frozen cod and haddock fillets, for frozen redfish fillets, for frozen fillets of flatfish and frozen fillets of hake were grouped under a single standard for frozen fish fillets. The standard for frozen eviscerated Pacific salmon was turned into a more general standard for frozen finfish, uneviscerated and eviscerated. There was also the standard for canned mackerel and horse mackerel that became the standard for canned finfish.

b) Simplification of the essential composition and quality factors

The old standards included detailed specifications for product quality and presentation. The "essential quality factors" sections were noticeably more detailed than those of the revised standards, with particular attention paid to the notion of "characteristic of the species" whether aspect, odour, flavour or texture. Conformity of a product to a standard was assessed in terms of compliance with a certain quality and with the characteristics of the species. Such a notion is however difficult to define objectively and can of course vary from one country to another, according to production expertise and consumption traditions.

In the revised standards, the provisions of the section on "essential quality factors" permit a distinction between acceptable product and product unfit for consumption; conformity is thus assessed on the basis of absence of defects likely to render the product unfit for consumption. The other product quality provisions that featured in the old standards have been placed in annex of the draft Code of Practice for Fish and Fishery Products and are presented as optional finished product specifications for the attention of sellers and purchasers.

The decision to group standards is coherent with the simplification of conformity evaluation criteria. At the same time, the simplification of quality provisions and the removal of the "characteristics of the species" notion can lead one to question the purpose of maintaining certain specific standards.

For example, one could question the relevance of the standard for canned sardines and sardine-type products, the standard for canned tuna and bonito or the standard for canned salmon, when there exists the standard for canned finfish, which is far more general in scope.

A comparison of each section (cf. Annex 2) of these four standards indicates that there is very little difference. The "product definition" sections differ essentially in the species families targeted in each standard, and the definition of canned finfish could in fact easily apply to sardines and sardine-type products, tuna and bonito or salmon. The content of the other sections is virtually identical. **Thus, the only real specific feature of these three standards is the restricted list of species featured in the product definition section that allows these species to be associated with a product name with guaranteed international repute.**

2.2.2 What then are the criteria for rejecting or accepting an additional product under a standard?

When evaluating the acceptability of an additional species in a Codex standard, we need to ask if the product is of comparable quality to, and offers the same characteristics as, the species targeted by the standard.

We have seen that the old standards defined quality criteria and considered the notion of *characteristics of the species*. In the revised standards, conformity is determined by the absence of defects likely to render the product unfit for consumption and which are not, in themselves, characteristics of the species. **The revised standards are therefore clearly far less discriminating than the old standards .**

2.3 Consequences for application of the inclusion procedure

Under such conditions, by applying the procedure for the inclusion of additional species and employing the criteria used under the revised standards, there is every likelihood that we could include in the list of sardine-type species most species belonging to the *Clupeidae* family or indeed the *Clupeiformes* order or even more distant small fish species, such as the capelin. Or again, without even the need for a sensory evaluation, it is hard to see how *Allothenus fallai* or *Orcynopsis unicolor* or other species of the *Scombridae* family could be refused inclusion under the standard for canned tuna and bonito.

Once the taxonomic information has been checked, and in the knowledge that the fishery resource can be commercially exploited and that the product is suitable for recognized preparation and processing, there is little chance that the laboratory sensory evaluation will result in product non-conformity, unless it is spoiled or presents major defects.

The importance of taxonomic criteria can be illustrated by the request made in 1996 for species of the *Galathea* family to be included in the standard for frozen shrimps. The Committee felt that these crustaceans were more closely associated with the standard for frozen lobster, a position it adopted on the basis of considerations that were more biological than qualitative, and because shrimps represent a relatively uniform and clearly identifiable group.

The inclusion of *Galathea* in the standard for shrimps did in fact present a risk of confusion over product name. Their inclusion in the standard for frozen lobster would carry less risk as this standard requires distinct product names for the different families included in its scope.

We therefore need to question the utility of this inclusion procedure. Should it be abandoned? Should it be improved and the approach put forward by the Committee in 1995 pursued?

4. Proposals

4.1 Name of the product

Given the huge variety of species of fish, mollusc and shellfish that can be traded internationally and the enormous diversity of appellation among countries, the name of a product must be clearly identifiable with the species used for its manufacture. Consumer perception of species identity can vary so much from one country to another that **the use of the common or usual name employed in the country where the product is sold appears to be one way of avoiding confusion in the mind of the consumer.**

4.1.1 The standards applying to canned finfish

The limited specificity of the revised standards means that the procedure for the inclusion of additional species is not very discriminating. This is particularly problematical for standards applying to products that are defined by a list of species, particularly canned finfish. All *Clupeiformes* are eligible for inclusion in the list of canned sardines and sardine-type products; all tunnies are eligible for inclusion in the list of canned tuna and bonito, and the same reasoning can no doubt be applied to salmonids. This potential proliferation of sardine-type products, tuna and bonito increases the risk of confusion over names.

The comparison of the four standards for canned finfish revealed so few differences that all these products could be included under the standard for "canned finfish".

We therefore need to question whether the distinction made in these four standards is not artificial. **They could feasibly be merged under a single standard for "canned finfish"**. What amendments would then be needed, particularly in product definition and labelling specifications?

Assuming a future merger of standards relating to canned finfish, the "name of the food" section should be that of the present Standard for Canned Finfish: **"the name of the product declared on the label shall be the common or usual name applied to the species in accordance with the law and custom of the country in which the product is sold, and in a manner not to mislead the consumer"**.

4.1.2 On a more general level, and regardless of any future merger of standards for canned finfish, use of the common or usual name of the species would appear to be necessary for identification of the product/species, but this is not always sufficient in certain Codex standards for fishery products. Risks of confusion arise from the fact that the same fish can go under different names, depending on the standard covering the product (herring/sardine, anchovy/sardine). This risk of confusion can only increase with the number of species likely to be added to lists in standards. At the same time, using an overly generic term to designate a product made from a large number of species from different origins could fail to ensure transparency of trade and appropriate consumer information (for example "frozen scallop muscle" for all *Pectinidae*).

This confusion could be limited by defining more precise labelling requirements besides the name of the product, thus also providing more information to consumers and enhancing product traceability.

* **The common name of the product should be added to the scientific name**

There is a genuinely universal name for each species, which is its scientific name. Of course, the Latin name is not always readily understandable by consumers, but it does constitute a reference for product identification, facilitating traceability and helping inspection services check product identity. We need to remember that Codex standards are designed to cover products for which there is significant international trade; in this context the introduction of the scientific name in labelling requirements to enhance product identification would appear to be both reasonable and legitimate.

Along the same lines, a Codex list of commercial names linked to scientific names could be drawn up in at least the three languages used in Codex standards for the fish, crustacean and mollusc species.

* **A statement of species origin should feature on the labelling**

With markets becoming increasingly globalized, consumers wish to know the origin of products, so a statement of origin of the fish, crustaceans or molluscs used in a given product should be taken into consideration, according to modalities to be defined.

4.2 *Proposals to improve the inclusion procedure*

4.2.1 *Sensory evaluation*

The present procedure envisages the analysis by at least three laboratories of the products proposed for inclusion for the purpose of comparison with products derived from species already included in the standard.

The procedure should refer to the guidelines for the sensory evaluation of fish and shellfish in laboratories (CAC-GL 31-1999). Although this document focuses in particular on identifying the defects of a product in relation to the quality criteria defined in the relevant standard, the recommendations formulated for evaluation facilities, preparation of samples and qualifications of assessors can be applied to the comparative sensory evaluation of the inclusion procedure.

The procedure does not describe the sensory evaluation method to be used by the laboratories designated by the Committee. Until now, assessment has been done by experienced persons with a sound understanding of the characteristics of the products concerned. It would be useful to specify the evaluation procedure, for example the presentation of unidentified samples to the assessment panel (blind assessment), which might seem obvious but should nevertheless be spelled out. The Committee could also consider whether the use of a panel of experts is more appropriate than a panel trained in applying particular tests set out in the ISO standards for product comparison (triangular tests, paired comparisons, test A non-A ...).

4.2.2 *Taxonomic information*

The present procedure requires the requesting country to provide an attestation from an appropriate institution regarding the scientific name and other relevant taxonomic information for the species in question.

4.2.2.1 *The "risk of confusion" criterion*

We have seen that the presence in the standard for canned sardines and sardine-type products of species such as herring and sprat can cause confusion, given that these products are referred to as X sardine when canned, but herring and sprat when salted.

The inclusion procedure should discard species likely to have different names according to type of product and covering standard. Suppose, for example, that a request is made to include the Pacific herring *Clupea pallasii* in the standard for salted herring and sprats and in the standard for canned sardines and sardine-type products; it would in principle be reasonable to include this species in the standard for herring, given that the more usual name for this fish is indeed "herring", which coincides with the title of the standard. It would also be wiser however to retain the same name when this species is canned, so - to avoid confusion - its inclusion in the standard for canned sardines and sardine-type products should be refused, with it being included under the standard for canned finfish. **We therefore propose that this criterion of "evaluation of risk of confusion" be introduced into the inclusion procedure.**

As the list of species will undoubtedly grow, it would no doubt be useful to review existing lists to identify any risks of confusion and, if necessary, to remove species posing problems.

4.2.2.2 *Criterion of authentication*

The species proposed for inclusion in a Codex standard need to be identifiable. The supply of biological information envisaged in the present inclusion procedure is needed to be able to place the species within a classification, but additional information should be provided to improve the effectiveness of the procedure. With the prospect of growing international trade and an increasing number of potentially marketable species, there must be methods to verify product authenticity. **The country requesting the inclusion of an additional species in a standard should be in a position to provide biochemical references that will permit identification of the species in the products covered by the standard, e.g. protein electrophoretic profiles or DNA sequences.**

Molecular biology studies have made considerable progress in the identification of processed fishery products, including products having undergone extensive technological treatment. It would be interesting to draw up an inventory of the analytical protocols used in the member countries of the Codex Alimentarius to identify species used in fishery products and to collate available reference data.

Such a compilation or database of internationally recognized references could be useful for applying the inclusion procedure and for verifying product conformity with the labelling requirements of standards.

Canned fishery product standards

	2.1. Product definition	2.3.Presentation	6. Labelling: Name of the food
Canned finfish	<ul style="list-style-type: none"> - Any species of finfish other than those covered by specific standards; - may contain a mixture of species with similar sensoric properties, from within the same genus 	any presentation	<ul style="list-style-type: none"> - common or usual name(s) of the species in accordance with the law and custom of the country in which the product is sold and in a manner not to mislead the consumer - where a mixture of species are used, they shall be indicated on the label
Canned sardine and sardine type products	<ul style="list-style-type: none"> - Limited list of species from different genus from the families <i>Clupeidae</i> and <i>Engraulidae</i> (including <i>herring, anchovies and sprat</i>) - head and gills removed - may be ungutted 	<ul style="list-style-type: none"> any presentation - at least 2 fish in each can - contains only one fish species 	<ul style="list-style-type: none"> - sardine (for <i>Sardina pilchardus</i> only) - X sardine of a country, a geographic area, the species, or the common name of the species in accordance with the law and custom of the country in which the product is sold and in a manner not to mislead the consumer
Canned tuna and bonito	Limited list of species from different genus from the family <i>Scombridae</i>	<ul style="list-style-type: none"> - solid - chunks - flakes - grated or shredded - any other 	<ul style="list-style-type: none"> - tuna or bonito - preceded or followed by the common or usual name(s) of the species in accordance with the law and custom of the country in which the product is sold - may be qualified by a term descriptive of the colour: “white” for <i>Thunnus alalunga</i> only
Canned salmon	Limited list of Atlantic salmon and Pacific salmon species	<ul style="list-style-type: none"> - sections - any other presentation 	designation appropriate to the species of the fish according to the law, custom and practice in the country in which the product is sold
Canned shrimps	<ul style="list-style-type: none"> - Any combination of species of the families <i>Penaedidae</i>, <i>Pandalidae</i>, <i>Crangonidae</i> and <i>Palaemonidae</i> - heads, shell, antennae removed 	<ul style="list-style-type: none"> - peeled shrimp - cleaned or deveined - broken shrimp - any other presentation - may be designated as to size 	<ul style="list-style-type: none"> - shrimp or prawn - may be preceded or followed by the common name of the species in accordance with the law and custom of the country in which the product is sold and in a manner not to mislead the consumer - the name of the product shall be qualified by a term descriptive of the presentation - if labelled as to size: in compliance with section 2.3.5 and annex B - broken shrimp defined in 2.3.3 shall be so labelled
Canned crab meat	<ul style="list-style-type: none"> - Any edible species of the sub-order of <i>Brachyura</i> of the order <i>Decapoda</i> and all species of the family of <i>Lithodidae</i> - prepared from leg, claw, body and shoulder meat, singly or in combination - shell removed 	- any other presentation	<ul style="list-style-type: none"> - crab or crab meat - other descriptive terms that will avoid misleading or confusing the consumer

Frozen fishery product standards

	2.1. Product definition	2.3.Presentation	6. Labelling: Name of the food
Quick frozen finfish uneviscerate	- Any species of finfish	any presentation	- common or usual name of the species - eviscerated (if it is the case) - head-on or headless - glazed with sea water (if so) - frozen or quick frozen - storage conditions
Quick frozen fish fillets	- Slices of fish of irregular size and shape...	any presentation - may be presented as boneless	- fillets of... according to the law custom or practice of the country in which the product is sold - form of presentation - glazed with sea water (if so) - frozen or quick frozen - storage conditions
Frozen blocks of fish fillets, minced fish...	- Rectangular or other uniformly shaped masses of cohering fish fillets, minced fish or a mixture thereof - single species or a mixture of species with similar sensory characteristics	any presentation - may be presented as boneless	- x y blocks according to the law custom or practice of the country in which the product is sold - x = common name(s) of the species - y = form of presentation - glazed with sea water (if so) - frozen or quick frozen - storage conditions
Quick frozen fish sticks... breaded or in batter	- portions cut from frozen fish flesh blocks or formed from fish flesh, and natural fish fillets, breaded or battered coatings, raw or partially cooked - prepared from a single species or from a mixture of species with similar sensoric properties	- fish stick: 20g<weight<50 g, > 10mm thick - fish portion: any shape, weight, size - fish fillets - any presentation	breaded and /or breaded fish sticks, fish portions or fillets or other specific names used in accordance with the law and custom of the country in which the product is sold and in a manner not to mislead the consumer - reference to the species or the mixture of species - show whether prepared from minced flesh, fillets or a mixture
Quick frozen shrimps	- Srimps :raw,cooked or partially cooked; species from the families: Penaeidae, Pandalidae, Crangonidae, Palaemonidae may contain a mixture of species with similar sensoric properties from a single genus	- any presentation - may be packed by count per unit of weight or per package	- shrimp or prawn in accordance with the law and custom of the country in which the product is sold - may be preceded or followed by the common name of the species - qualified by a term descriptive of the presentation in a manner not to mislead the consumer - cooked, partially cooked or raw
Quick frozen lobsters	crustaceans from the families - Nephropidae : genus Homarus and species Nephrops norvegicus - Palinuridae - Scyllaridae no mixture of species	- any presentation - may be packed by count per unit of weight or per package or within a stated weight range	- Lobster - Norway lobster - Rock lobster, Spiny l., Crawfish - Slipper lobster, Bay l., Sand l. - the common name of the species may be added - descriptive terms of presentation - cooked or raw
Quick frozen raw squid	Raw squid and parts of raw squid from the families: - Loliginidae - Ommastrephidae	- any presentation	squid or other name in accordance with the law and custom of the country in which the product is sold - reference to the presentation

Salted, dried and smoked fishery product standards

	2.1. Product definition	2.3.Presentation	6. Labelling: Name of the food
Salted and dried salted Gadidae	<ul style="list-style-type: none"> - species belonging to the family Gadidae - fish bled, gutted, beheaded, split or filleted, washed, salted - dried salted fish is salted fish which has been dried 	<ul style="list-style-type: none"> - split fish - split fish with entire backbone - fillet - other presentation 	<ul style="list-style-type: none"> - salted fish, wet salted fish, salted fillets, dried salted fish, klippfish or other designations in accordance with the law and custom of the country in which the product is distributed + the name of the species of fish from which the product is derived - forms of presentations - klippfish: only for dried salted fish prepared from fish which has reached 95% salt saturation before to drying - wet salted fish: fish fully saturated with salt
Dried salted shark fins	<ul style="list-style-type: none"> - dorsal and pectoral fins and lower lobe of the caudal fin - all flesh has been removed - cut from species of sharks safe for human consumption 	<ul style="list-style-type: none"> - skin on or skinless - any other presentation 	<ul style="list-style-type: none"> - dried shark fins or any other appropriate name in accordance with the law and custom of the country in which the product is distributed - reference to the form of presentation - the name of the species, the type of fin and its size shall also appear on the label
Salted Atlantic herring and salted sprats	<ul style="list-style-type: none"> - From fresh or frozen Clupea harengus and Sprattus sprattus - Salting with appropriate amount of salt, sugar, spice, performed in watertight containers - different types of salted fish (from very lightly to heavily salted) 	any presentation	<ul style="list-style-type: none"> ...-herring or ...-sprat in accordance with the law and custom of the country in which the product is sold and in a manner not to mislead the consumer
Salted dried anchovies	<ul style="list-style-type: none"> - All commercial species of the family Engraulidae - salted, boiled and dried - intended for cooking before consumption 	<ul style="list-style-type: none"> packaging moisture proof and gas impermeable 	<ul style="list-style-type: none"> - Dried salted anchovies - grade and size of the product - scientific and common names
Smoked fish			
Crackers from fish and shellfish			

Other

Live, frozen and canned bivalve molluscs	Harvested alive from an approved growing area / relaying area / purification centre	<ul style="list-style-type: none"> - any presentation - may be packed by count per unit of weight or per package 	<ul style="list-style-type: none"> - name of the species according to the law custom or practice of the country in which the product is sold - presentation - steamed, cooked, deshelled, frozen, canned... - date of minimum durability for live products - identification of the approved establishment (identification of the growing area must be kept at the establishment)
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Standard title	Canned finfish	Canned Sardine and sardine-type products	Canned tuna and bonito	Canned salmon
2. Description				
2.1. Product definition	<ul style="list-style-type: none"> - Any species of finfish other than those covered by specific standards; - may contain a mixture of species with similar sensoric properties, from within the same genus 	<ul style="list-style-type: none"> - Limited list of species from different genus from the families <i>Clupeidae</i> and <i>Engraulidae</i> (including herring, anchovies and sprat) - head and gills removed - may be ungutted 	<ul style="list-style-type: none"> Limited list of species from different genus from the family <i>Scombridae</i> 	<ul style="list-style-type: none"> Limited list of Atlantic salmon and Pacific salmon species - head, tail, fins and viscera removed
2.2. Process definition	<ul style="list-style-type: none"> - Packed in hermetically sealed containers - processing treatment sufficient to ensure commercial sterility 	idem	idem	idem
2.3. Presentation	any presentation	<ul style="list-style-type: none"> - any presentation - at least 2 fish in each can - contains only one fish species 	<ul style="list-style-type: none"> - solid - chunks - flakes - grated or shredded - any other 	<ul style="list-style-type: none"> - sections - any other presentation
3. Essential composition and quality factors				
Fish	<ul style="list-style-type: none"> - sound fish - quality fit to be sold fresh for human consumption - head, tail and viscera removed 	<ul style="list-style-type: none"> - sound fish - quality fit to be sold fresh for human consumption 	idem	idem
Other ingredients	<ul style="list-style-type: none"> - food grade quality - conform to all applicable standards 	idem	idem	idem
Decomposition: histamine	Scombridae, Clupeidae, Scombresocidae, Coryphaenidae Pomatomidae <10 mg histamine /100g	<10 mg histamine /100g	<10 mg histamine /100g	
Final product	examination of defects defined in section 8	idem	idem	idem

Standard title	Canned finfish	Canned Sardine and sardine-type products	Canned tuna and bonito	Canned salmon
8.1. Foreign matter that does not pose a threat for human health	any matter indicating non-compliance with GMP	idem	idem	idem
8.2. Odour/Flavour	persistent and distinct objectionable odours and flavours indicative of decomposition or rancidity	idem	idem	idem
8.3. Texture	- excessively mushy flesh uncharacteristic of the species in the presentation - excessively tough or fibrous flesh	idem	idem	idem
honey combed flesh	in excess of 5% of the drained weight		idem	idem
8.4. Discolouration	distinct discolouration indicative of decomposition or rancidity or by sulphide staining of more than 5% of the drained weight	idem	idem	idem
8.5. Objectionable matter	struvite crystal greater than 5 mm in length	idem	idem	idem
4. Food additives				no additives
Thickening or gelling agents (in packing media)	400, 401, 402, 404, 406, 407, 407a, 410, 412, 413, 415, 440, 466	idem	idem	
Modified starches	1401, 1402, 1412, 1413, 1414, 1420/1421, 1422, 1440, 1442	idem	idem	
Acidity regulators	260, 270, 330	idem	idem + disodium diphosphate	
Natural flavours	spice oils, spice extract smoke flavours	idem	idem	

Standard title	Canned finfish	Canned Sardine and sardine-type products	Canned tuna and bonito	Canned salmon
5. Hygiene and handling				
Foreign material	that poses a threat to human health	idem	idem	idem
Micro-organisms	capable of development under normal conditions of storage	idem	idem	idem
Histamine	Scombridae, Clupeidae, Scombresocidae, Coryphaenidae Pomatomidae <20 mg histamine /100g	<20 mg histamine /100g	<20 mg histamine /100g	
Other substances	which may represent a hazard	idem	idem	idem
Container integrity defects	which may compromise the hermetic seal	idem	idem	idem
6. Labelling				
Name of the food	- common or usual name(s) of the species in accordance with the law and custom of the country in which the product is sold and in a manner not to mislead the consumer - where a mixture of species are used, they shall be indicated on the label	- sardine (for <i>Sardina pilchardus</i> only) - X sardine of a country, a geographic area, the species, or the common name of the species in accordance with the law and custom of the country in which the product is sold and in a manner not to mislead the consumer	- tuna or bonito - preceded or followed by the common or usual name(s) of the species in accordance with the law and custom of the country in which the product is sold - may be qualified by a term descriptive of the colour: “white” for <i>Thunnus alalunga</i> only	designation appropriate to the species of the fish according to the law, custom and practice in the country in which the product is sold
Name of the packing medium	shall form a part of the name of the food	idem	idem	idem
Form of presentation	the name of the product shall be qualified by a term descriptive of the presentation		in close proximity to the common name, according to 2.3.	idem
Other	other descriptive terms that will avoid misleading or confusing the consumer	idem		

Standard title	Canned finfish	Canned Sardine and sardine-type products	Canned tuna and bonito	Canned salmon
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7. Sampling, examination, analyses				
Sampling: examination of the final product	Codex Alimentarius Sampling Plans for Prepackaged Foods	idem	idem	idem
Sampling: examination of net weight/drained weight	appropriate sampling plan	idem	idem	idem
Sensoric and physical examination	- by trained persons - in accordance with annexe A and the Guidelines for the Sensory Evaluation of Fish CAC/GL31-1999	idem	idem	idem
Determination of net weight	method for canned fish	idem	idem	idem
Determination of drained weight	method for canned fish	idem	idem	idem
Procedures for packs in sauce (washed drained w)	method for canned fish	idem	idem	idem
Determination of presentation			specific method for tuna and bonito	
Determination of histamine	AOAC 977.13 (15 th Edition, 1990)	idem	idem	

Appendix 2 - Comparison of Codex standards for canned fish

Apart from the list of species and of course the name of the food in the labelling section, the specific points are the following:

⇒ *in the "presentation" section:*

- *at least two fish in each can of sardines: this requirement is not fundamental for the characterization of the product; from the practical point of view, presentation with only one fish per can is of little interest.*
- *the standard for canned finfish accepts a mix of species of the same genus and of similar sensory characteristics, while the standard for sardines and sardine-type products specifies that the product should only include one species. This requirement is not mentioned for salmon or for tuna and bonito. The provision in the "name of the food" section of the standard for finfish is that the species should be indicated on the label where a mix of species has been used. Extending this provision of the "finfish" standard to the other three standards could be discussed. Also, section 2.1 on "product definition" in the standard for canned finfish could be amended to read as follows: " There shall be no mix of species where there are whole fish or separate whole fillets."*
- *the standard for tuna and bonito defines "solid", "chunks", "flakes", "grated or shredded" presentations with conformity criteria and provides a method of verification in section 7. These provisions are essential to the definition of canned tuna and bonito products placed on the international market, and could also be applied to other canned products, such as sturgeon, which is covered by the standard for canned finfish, or salmon, whose standard (section 2.3.2) authorizes other presentations than the traditional presentation described in section 2.3.1.*

⇒ *in the "additives" section: no additive is authorized for canned salmon; there is in fact little technological justification for using additives for the salmon packed in water or oil envisaged in the standard, but this observation could be applied to tuna packed in water or sardines in oil. The old standard for canned tuna and bonito in water or oil did not allow any additive, apart from sodium pyrophosphate, as it did not apply to packs in sauces; the standard for salmon is the only one of the four revised finfish standards whose scope is limited to packs in water or oil; broadening it to other types of preparation, with the inclusion of a list of authorized additives similar to those of the other three standards, could also be discussed.*

If we accept that the few specific points examined above are not fundamental, the only real specificity in these three standards lies in the limited list of species in each definition section that allows these species to be associated with a product name that enjoys an assured recognition on international markets.