



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

Thirty-fourth Session

Ålesund, Norway

19 – 24 October 2015

DRAFT CODE OF PRACTICE FOR PROCESSING OF FISH SAUCE  
(At Step 6)

Comments submitted by Brazil, Egypt and European Union

**BRAZIL**

**1.2 Salt requirements**

Technical guidance: second bullet: “The composition of salt differs according to the origin. Mine salt and solar salt of marine origin contain several other salts such as calcium sulphate, magnesium sulphate and chloride as impurities. ~~Solar salt may be stored at least 2 months before using to obtain a good taste of fish sauce.~~”

**Suggestion:** Move the strikethrough text to step 2. Mixing of fish and salt.

**Rationale:** This text refers to a potential defect of the product (bad taste).

**1.2 Salt requirements**

Technical guidance: Fourth bullet: “The size of the granules used should be carefully considered. Medium size salt crystal should be used. Use clean salt without contaminants. ~~If small size salt is used, the outer skin of fish will rapidly loose moisture and salt burn can occur which will prevent salt penetration into the fish. Consequently, inner of fish can be spoiled. In case of too large salt crystal, it can slowly penetrate, thus fish might be spoiled before preservation effect of salt occurs.~~”

**Suggestion:** Move the strikethrough text to step 2. Mixing of fish and salt

**Rationale:** This text refers to a potential defect of the product which occurs in the step named “mixing of fish and salt” (quickly dehydration and salt burn).

**8. Blending**

**Suggestion:** Add in potential defects: incorrect pH.

Technical guidance: add a new bullet point: the pH level of the product should be measured and the result should be in accordance to the Standard for Fish Sauce.

**Rationale:** The pH level is one of the chemical properties of this product established in the Standard for Fish Sauce (CODEX STAN 302-2011, item 3.4.)

**11. Filling in containers**

**Suggestion**

Technical guidance: add a new bullet point: Filling machines should be regularly checked to prevent failure in the filling of container.

**Rationale:** The first bullet point on Technical Guidance informs that “Fermentation aids should be stored at appropriate temperature in order to avoid deactivation of fermentation aids.” But there is no potential defect related to this sentence.

## **EGYPT**

Proposed changes are in **bold** and underlined or in ~~strike through~~-text.

### **First paragraph**

... the quality characteristics of colour, clarity, aroma (odour) and taste are used to determine the end of the fermentation process **as the guide sings to the end of fermentation.**

### **Second paragraph**

Practically salt is commonly used to maintain fish quality and ~~freshness~~ for delaying the decomposition after the harvest rather than temperature control.

### **2. mixing of fish and salt**

Salt burn should be avoided by using the right ~~type~~ **size** of salt.

### **3. Fermenting**

When fermentation aids are used, the period can be varied. **The quality characteristics of colour, clarity, aroma (odour) and taste are used to determine the end of the fermentation process as teh guide sings to the end of fermentation.**

### **4. Separation**

- All utensils should be clean **and of non hazardous material.**

### **6. Succeeding extraction**

- Succeeding brine extraction **times** of the fish residues could be carried on as long as desirable extracts are obtained **and fulfilling the final characteristics of the product (CODEX STAN 302-2011).**

### **8. Blending**

- To achieve good quality fish sauce, ingredients should meet the required characteristics and ~~appropriated~~ **appropriate** concentrations.

### **12. Capping**

- Caps should be checked before **and after** capping **for cracking.**
- After capping foreign matter, **cracking and tightness** should be checked.

### **14. Transportation/distribution and storage**

## **EUROPEAN UNION**

### **1<sup>st</sup> paragraph**

In general, the size of fish used as raw material in fish sauce processing is small, not greater than 12cm in length. Traditional fish sauce fermentation relies on endogenous enzymes and indigenous bacteria of raw materials. For non-tradition fermentation **parts of fish (by-product),** other ingredients or processing aids may be ~~added used to assist~~ perform the fermentation process. **Raw fish and parts of fish shall be in a good condition, suitable for human consumption.....**

**Reason:** Beside traditional fermentation of small whole fish species, it should be emphasized that for reasons of sustainability, parts of fishes (for instance by-products of other processing) can also be fermented with enzymes as processing aids.

The sentence added reflects the quality conditions stipulated in the Codex Standard for Fish Sauce<sup>1</sup>.

### **1. Reception of raw materials**

#### **1.1 Fish**

*Potential hazards:* histamine, microbiological contamination, biotoxins, chemical contamination (including pesticides **and veterinary residues**), physical contamination, heavy metals

**Reason:** To align with the description of the technical guidance.

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<sup>1</sup> Section 3.1.1. Fish sauce shall be prepared from sound and wholesome fish or parts of fish in a condition fit to be sold fresh for human consumption.

## 1.2 Salt requirements

- The size of the salt granules used should be carefully considered. Medium size salt crystal should be used. ~~Use clean salt without contaminants.~~ If small size salt is used, the outer skin of fish...

**Reason:** The sentence is redundant as under the first bullet point the Standard for Food grade Salt already includes this requirement.

## 2. Mixing of fish and salt

- ~~Salt burn should be avoided by using right type of salt.~~

**Reason:** The last bullet point should be deleted because salt burn is already mentioned under 1.2 Salt requirements (last bullet point).

## 5. Brine preparation

Technical Guidance:

- Brine, preferably saturated, added to fish residues should be **freshly** prepared from potable water and food grade salt for succeeding extraction.

**Reason:** In general, food production requires clean and fresh ingredients. Due to the description “preferably saturated” the fresh preparation of brine should be a must.

## 12. Capping

Potential hazards: **unlikely**, residual, chemical cleaning agents

Potential defects: loose plastic matter, broken caps, foreign matter

Technical Guidance:

- Caps should be **randomly and regularly** checked **for defects and cleanliness** before capping.
- After capping foreign matter should be checked.

**Reason:** For reasons of GMP also caps should be checked for defects and cleanliness as containers under point 11.

## 17. Ingredients and additives

Potential hazards: chemical, physical and microbiological contamination

Potential defects: depends on ingredient

Technical Guidance:

- Ingredients and additives should be stored **in a clean place** appropriately in terms of temperature, humidity **and hygienic conditions.**
- ~~Ingredients and additives should be stored in a dry and clean place under hygienic conditions.~~
- Ingredients and additives should be properly protected and segregated to prevent cross-contamination.
- Defective ingredients and additives should be used.

**Reason:** To simplify the technical guidance.