

# CODEX ALIMENTARIUS

INTERNATIONAL FOOD STANDARDS



Food and Agriculture  
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## REGIONAL STANDARD FOR LAVER PRODUCTS Asia

CXS 323R-2017

Adopted in 2017. Amended in 2023 and 2024.

**2024 Amendments**

Following decisions taken at the Forty-seventh Session of the Codex Alimentarius Commission in December 2024, amendments were made in Section 4. Food additives.

**2023 Amendments**

Following decisions taken at the Forty-sixth Session of the Codex Alimentarius Commission in December 2023, amendments were made in Section 8.3 Labelling of non-retail containers.

## 1. SCOPE

This standard applies to dried laver, roasted laver and seasoned laver products of the genus *Pyropia*, which are defined in Section 2 below, and offered for direct consumption, including for catering purposes or for repackaging and further processing if required.

## 2. DESCRIPTION

### 2.1 Product definition

Laver products are those prepared mainly with raw laver, which belongs to the genus *Pyropia*. All products are dried and after drying, the products may be further roasted and/or seasoned.

### 2.2 Styles

The product may come in various styles such as a shredded fragment, a sheet, a rolled-sheet, a round lump, etc. Any presentation of the product shall be permitted, provided that it meets all requirements of this standard; and is adequately described on the label to avoid confusing or misleading the consumer.

### 2.3 Product types

#### 2.3.1 Dried laver products

##### 2.3.1.1 Dried laver

Dried laver is the product of raw laver, which is washed, chopped/cut, moulded, dehydrated, and dried after harvesting (first dried products). It may go through a re-drying process for long-term storage (second dried products).

##### 2.3.1.2 Other dried laver

Other dried laver is the product other than the product defined in Section 2.3.1.1.

#### 2.3.2 Roasted laver product

Roasted laver product is the product in which the dried laver products, defined in Section 2.3.1, go through roasting without seasoning, so that its physicochemical characteristics such as colour, moisture and texture may change.

#### 2.3.3 Seasoned laver products

##### 2.3.3.1 Seasoned laver

Seasoned laver is the product in which the dried laver products, defined in Section 2.3.1, is seasoned with any optional ingredients, defined in Section 3.1.2. It may have any following methods; roasting, stir-/deep-frying, treating with edible oil, etc. before or after seasoning.

##### 2.3.3.2 Seasoned laver for brewing

Seasoned laver for brewing is the product in which the dried laver, defined in Section 2.3.1.1, is broken and roasted/stir-fried. The product is already seasoned or added with seasoning when consumed. Boiling water is added before consumption.

## 3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

### 3.1 Composition

#### 3.1.1 Basic ingredients

Raw laver which belongs to the genus *Pyropia*, as defined in Section 2.1.

#### 3.1.2 Optional ingredients

As long as the weight of basic ingredient, which is defined in Section 3.1.1, is more than 60 percent, other edible seaweeds, whether or not they are included intentionally, may be used for the products defined in Section 2.3.1. When other edible seaweeds are mixed, the fact should be reflected in the name of the products defined in Section 8.1.

All other ingredients may be used for the products defined in Section 2.3.3. Seasoned laver products shall be of food-grade quality and conform to all applicable Codex standards.

### 3.2 Quality factors

The final product shall maintain its own flavour and colour, which represents its raw materials and processing methods and shall be free from off-flavours.

#### 3.2.1 Moisture content

Products	Moisture content (Maximum %)
Dried laver products (Section 2.3.1)	14
in case of 2nd dried products	7
Roasted laver product (Section 2.3.2)	5
Seasoned laver products (Section 2.3.3)	5
in case of seasoned laver for brewing (Section 2.3.3.2)	10

#### 3.2.2 Acid value

Products	Maximum (mg KOH/g)
Seasoned laver products fried or treated with edible oil (Section 2.3.3)	3.0

### 3.3 Classification of defectives

A container that fails to meet one or more of the applicable quality requirements, as set out in Section 3.2, should be considered as defective.

### 3.4 Lot acceptance

A lot will be considered acceptable when the number of defectives, as defined in Section 3.3, does not exceed the acceptance number (c) of the appropriate sampling plan with an acceptable quality level (AQL) of 6.5.

## 4. FOOD ADDITIVES

### 4.1 Dried laver products and roasted laver products

No food additives are permitted.

### 4.2 Seasoned laver products

Only acidity regulators, anticaking agents, flavour enhancers, sweeteners, thickeners, and antioxidants used in accordance with Table 1 and Table 2 of the *General standard for food additives* (CXS 192-1995)<sup>1</sup> in food categories 04.2.2.2 (Dried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds) and 04.2.2.8 (Cooked or fried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds) or those listed in Table 3 of the *General standard for food additives* are acceptable for use in seasoned laver products (see Section 2.3.3) conforming to this standard.

#### 4.2.1 Flavourings

The flavourings used in these products should comply with the *Guidelines for the use of flavourings* (CXG 66-2008).<sup>2</sup>

## 5. CONTAMINANTS

The products covered by this standard shall comply with the maximum levels of the *General standard for contaminants and toxins in food and feed* (CXS 193-1995).<sup>3</sup>

The products covered by this standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

## 6. HYGIENE

It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the *General principles of food hygiene* (CXC 1-1969),<sup>4</sup> and other relevant Codex texts, such as codes of hygienic practice and codes of practice.

The products should also comply with other microbiological criteria established in accordance with *Principles and Guidelines for the Establishment and application of microbiological criteria related to foods* (CXG 21-1997).<sup>5</sup>

## 7. WEIGHTS AND MEASURES

### 7.1 Net contents

The net contents of the product shall be expressed in the unit of weight (g or kg) or in the unit of the number of sheet, or in a combination of these two.

#### 7.1.1 Classification of defectives

A container that fails to meet the requirement for net contents of Section 7.1 should be considered as a defective.

#### 7.1.2 Lot acceptance

A lot should be considered as meeting the requirement of Section 7.1 when the number of defectives, as defined in Section 7.1.1, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

## 8. LABELLING

In addition to the provisions of the *General standard for the labelling of pre-packaged foods* (CXS 1-1985),<sup>6</sup> the following specific provisions apply:

### 8.1 Name of the products

The name of the products shall be in line with Section 2.3. Other appropriate names can be labelled in accordance with the law and custom in the country where the products are distributed, in a manner not to mislead the consumer. In the case where the edible seaweeds other than *Pyropia* are included as optional ingredients, this fact should be reflected in the name of the products.

### 8.2 Labelling of net contents

The net contents should be declared in accordance with Section 7.1. For retail packages, weight must be declared in accordance with the requirement of the importing country.

### 8.3 Labelling of non-retail containers

The labelling of non-retail containers should be in accordance with the *General standard for the labelling of non-retail containers of foods* (CXS 346-2021).<sup>7</sup>

In addition, edible foreign matters<sup>i</sup> shall be identified and appropriately declared on the label of the container or in the accompanying documents.

## 9. PACKAGING

Packaging materials used for retail products shall be completely transparent except for printing areas, or completely opaque. In addition, the products shall be packaged to protect them from moisture.

## 10. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this standard, the methods of analysis and sampling contained in the *Recommended methods of analysis and sampling* (CXS 234-1999)<sup>8</sup> relevant to the provisions in this standard, shall be used.

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<sup>i</sup> Sea creatures or sea plants which are not harmful to the human body and mixed unintentionally, unavoidably, naturally during the growing process in the sea.

## NOTES

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<sup>1</sup> FAO and WHO. 1995. *General standard for food additives*. Codex Alimentarius Standard, No. CXS 192-1995. Codex Alimentarius Commission. Rome.

<sup>2</sup> FAO and WHO. 2008. *Guidelines for the use of flavourings*. Codex Alimentarius Guideline, No. CXG 66-2008. Codex Alimentarius Commission. Rome.

<sup>3</sup> FAO and WHO. 1995. *General standard for contaminants and toxins in food and feed*. Codex Alimentarius Standard, No. CXS 193-1995. Codex Alimentarius Commission. Rome.

<sup>4</sup> FAO and WHO. 1969. *General principles of food hygiene*. Codex Alimentarius Code of Practice, No. CXC 1-1969 Codex Alimentarius Commission. Rome.

<sup>5</sup> FAO and WHO. 1997. *Principles and guidelines for the establishment and application of microbiological criteria related to foods*. Codex Alimentarius Guideline, No. CXG 21-1997. Codex Alimentarius Commission. Rome.

<sup>6</sup> FAO and WHO. 1985. *General standard for the labelling of pre-packaged foods*. Codex Alimentarius Standard, No. CXS 1-1985. Codex Alimentarius Commission. Rome.

<sup>7</sup> FAO and WHO. 2021. *General standard for the labelling of non-retail containers of foods*. Codex Alimentarius Standard, No. CXS 346-2021. Codex Alimentarius Commission. Rome.

<sup>8</sup> FAO and WHO. 1999. *Recommended methods of analysis and sampling*. Codex Alimentarius Standard, No. CXS 234-1999. Codex Alimentarius Commission. Rome.

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