



Food and Agriculture
Organization of the
United Nations



World Health
Organization

CODEX
ALIMENTARIUS
INTERNATIONAL FOOD STANDARDS

CODEX ALIMENTARIUS
STANDARD

**REGIONAL
STANDARD FOR
FERMENTED SOYBEAN
PASTE (ASIA)**
CXS 298R-2009



ADOPTED 2009
AMENDED 2025

CXS 298R-2009

History of the standard

2025 Amendments

Following decisions taken at the Forty-eighth Session of the Codex Alimentarius Commission in November 2025, amendments were made in Section 4: "Food additives", to align with the *General standard for food additives* (CXS 192-1995).

This publication was redesigned and published in 2025.

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".

Amended 2020.

2016 Amendment

The Thirty-ninth Session of the Codex Alimentarius Commission in June 2016 adopted the amendment to the *Codex Alimentarius Commission Procedural Manual* in recognition that the *Recommended methods of analysis and sampling* (CXS 234-1999) would be the single reference for methods of analysis and sampling. The methods section in this standard has been included in CXS 234-1999 and accordingly an amendment was made in Section 9: "Methods of analysis and sampling".

Amendments made prior to 2016:

Amended in 2012 and 2013.

Adopted in 2009.

1 Scope

This standard applies to the product defined in Section 2: “Description” and offered for direct consumption including for catering purposes or for repacking if required. It does not apply to the product when indicated as being intended for further processing.

2 Description

2.1 Product definition

Fermented soybean paste is a fermented food whose essential ingredient is soybean. The product is a paste type which has various physical properties such as semi-solid and partly retained shape of soybean and which is manufactured from the ingredients stipulated in Section 3.1.1: “Basic ingredients”, and Section 3.1.2: “Optional ingredients”, through the following processes:

- i) boiled or steamed soybeans, or the mixture of boiled or steamed soybeans and grains, are fermented with naturally occurring or cultivated microorganisms;
- ii) mixed with salt or brine and others;
- iii) the mixture or solid part of the mixture shall be aged for a certain period of time until the quality of the product meets the requirements stipulated in Section 3.2: “Quality factors”; and
- iv) processed by heat or other appropriate means, before or after being hermetically sealed in a container, so as to prevent spoilage.

3 Essential composition and quality factors

3.1 Composition

3.1.1 Basic ingredients

- i) soybeans;
- ii) salt;
- iii) potable water; and
- iv) naturally occurring or cultivated microorganisms (*Bacillus* spp. and/or *Aspergillus* spp., which are not pathogenic and do not produce toxins).

3.1.2 Optional ingredients

- i) grains and/or flour (wheat, rice, barley, etc.);
- ii) yeast and/or yeast extracts;
- iii) Lactobacillus and/or Lactococcus;
- iv) distilled ethyl alcohol derived from agricultural products (tapioca, sugar cane, sweet potato, etc.);
- v) sugars;
- vi) starch syrup; and
- vii) natural flavouring raw materials (powder or extract from dried fish or seaweed, spices and herbs, etc.).

3.2 Quality factors

Table 1

	Fermented soybean paste manufactured with soybean only	Fermented soybean paste manufactured with soybean and grains
Total nitrogen (w/w)*	No less than 1.6%	No less than 0.6%
Amino nitrogen (w/w)	No less than 0.3%	No less than 0.12%
Moisture (w/w)	No more than 60%	

Note:

* The nitrogen conversion factor of 5.71 should be used.

The product shall have the flavour, odour, colour and texture characteristic of the product.

3.3 Classification of defectives

Any container that fails to meet the applicable quality requirements, as set out in Section 3.2: "Quality factors", should be considered a defective.

3.4 Lot acceptance

A lot should be considered as meeting the applicable quality requirements referred to in Section 3.2: "Quality factors", when the number of defectives, as defined in Section 3.3: "Classification of defectives", does not exceed the acceptance number (c) of the appropriate sampling plans.

4 Food additives

Acidity regulators, antioxidants, preservatives and sweeteners used in accordance with Table 1 and Table 2 of the *General standard for food additives* (CXS 192-1995)¹ in food category 12.9.1 (Fermented soybean paste (e.g. miso)) and acidity regulators, antioxidants, colours, flavour enhancers, preservatives, stabilizers and sweeteners listed in Table 3 of the *General standard for food additives* (CXS 192-1995) are acceptable for use in foods conforming to this standard.

4.1 Processing aids

Processing aids used in products covered by this standard shall comply with the *Guidelines on substances used as processing aids* (CXG 75-2010).²

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).³

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),⁴ and other relevant Codex texts, such as codes of hygienic practice and codes of practice.

The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the establishment and application of microbiological criteria related to foods* (CXG 21-1997).⁵

7 Weights and measures

7.1 Minimum fill

The container should be well filled with the product, which should occupy not less than 90 percent (minus any necessary head space according to good manufacturing practices) of the water capacity of the container. The water capacity of the container is the value of distilled water at 20 °C which the sealed container will hold when completely filled. Taking into account various characteristics of the product minimum fill may not be applied to some types of products.

7.2 Classification of defectives

A container that fails to meet the requirement for minimum fill of Section 7.1: "Minimum fill" should be considered as defective.

7.3 Lot acceptance

A lot should be considered as meeting the requirements of Section 7.1: "Minimum fill" when the number of defectives, as defined in Section 7.2: "Classification of defectives" does not exceed the number (c) of the appropriate sampling plan.

8 Labelling

The products covered by the provisions of this standard shall be labelled in accordance with the *General standard for the labelling of pre-packaged foods* (CXS 1-1985).⁶

8.1 Product name

The name of the product shall be “fermented soybean paste”. Other names may be used if allowed by national legislation in the country where the product is consumed. The name of the product may include the name of an ingredient which characterizes the product.

8.2 “Halal” claim

Claims on “Halal” fermented soybean paste shall follow the appropriate section of the *General guidelines for use of the term “Halal”* (CXG 24-1997).⁷

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).⁸

9 Methods of analysis and sampling

For checking compliance with this standard, the methods of analysis and sampling contained in the *Recommended methods of analysis and sampling* (CXS 234-1999)⁹ relevant to the provisions in this standard shall be used.

Referenced texts

- 1 *General standard for food additives* (CXS 192-1995).
- 2 *Guidelines on substances used as processing aids* (CXG 75-2010).
- 3 *General standard for contaminants and toxins in food and feed* (CXS 193-1995).
- 4 *General principles of food hygiene* (CXC 1-1969).
- 5 *Principles and guidelines for the establishment and application of microbiological criteria related to foods* (CXG 21-1997).
- 6 *General standard for the labelling of pre-packaged foods* (CXS 1-1985).
- 7 *General guidelines for use of the term "Halal"* (CXG 24-1997).
- 8 *General standard for the labelling of non-retail containers of foods* (CXS 346-2021).
- 9 *Recommended methods of analysis and sampling* (CXS 234-1999).

Codex Alimentarius

A collection of international food standards developed to protect consumer health and ensure fair practices in the food trade. Codex standards are adopted by the Codex Alimentarius Commission, an intergovernmental body with 189 Members, established by FAO and WHO. The standards are recognized by the World Trade Organization as the benchmark for the safety of internationally traded food.

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