

هيئة التقييس لدول مجلس التعاون لدول الخليج العربية  
GCC STANDARDIZATION ORGANIZATION (GSO)

مشروع : نهائي

GSO 5/FDS/.....:2010 (E)

عجينة فول الصويا "المخمر" (CODEX STAN 298R:2009، معدل)  
Fermented Soybean Paste (CODEX STAN 298R:2009, MOD)

إعداد

اللجنة الفنية الخليجية لقطاع المنتجات الغذائية والزراعية

هذه الوثيقة مشروع لمواصفة قياسية خليجية تم توزيعها لإبداء الرأي والملاحظات بشأنها، لذلك فإنها عرضة للتغيير والتبديل، ولا يجوز الرجوع إليها كمواصفة قياسية خليجية إلا بعد اعتمادها من مجلس إدارة الهيئة.

رقم التصنيف الدولي: 67

**Fermented Soybean Paste**

**عجينة فول الصويا "المخمر"**

**Date of approval:  
Legal status:**

**تاريخ الاعتماد:  
صفة الإصدار:**

FOR STUDY PURPOSES

### تقديم

هيئة التقييس لدول مجلس التعاون لدول الخليج العربية هيئة إقليمية تضم في عضويتها الأجهزة الوطنية للمواصفات والمقاييس في دول الخليج العربية ، ومن مهام الهيئة إعداد المواصفات القياسية الخليجية بواسطة لجان فنية متخصصة.

وقد قامت هيئة التقييس لدول مجلس التعاون لدول الخليج العربية ضمن برنامج عمل اللجنة الفنية رقم 5 "اللجنة الفنية الخليجية لقطاع مواصفات المنتجات الغذائية والزراعية" بتبني المواصفة القياسية الدولية رقم كودكس 2009/298R "عجينة فول الصويا (المخمّر)" والتي أصدرتها "هيئة الدستور الغذائي" وتمت ترجمتها إلى اللغة العربية. وقامت (مملكة البحرين) بإعداد مشروع هذه المواصفة.

وقد اعتمدت هذه المواصفة كمواصفة (لائحة فنية) خليجية مع إدخال بعض التعديلات الفنية ، وذلك بإضافة بند المراجع التكميلية.

وذلك في اجتماع مجلس إدارة الهيئة رقم ( ) ، الذي عقد بتاريخ / / هـ ، الموافق / / م.

### Foreword

Standardization Organization for GCC (GSO) is a regional Organization which consists of the National Standards Bodies of GCC member States. One of GSO main functions is to issue Gulf Standards /Technical regulation through specialized technical committees (TCs).

GSO through the technical program of committee TC No.5: " Gulf technical committee for Food & Agricultural standards " has adopted the International Standard No. : CODEX STAN 298R/2009 "Fermented Soybean Paste" issued by (Codex Alimentarius) and has been translated to Arabic language. The Draft Standard has been prepared by (Kingdom of Bahrain)

This standard has been approved as Gulf (Technical Regulation) with some technical modifications by adding complementary references section.

by GSO Board of Directors in its meeting No..../..... held on / / H , / / G

## Fermented Soybean Paste

### 1 Scope:

This standard applies to the product defined in Section 3 below 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 Complimentary references:

- 2/1 GSO 9 “Labeling of prepackaged foodstuffs”
- 2/2 GSO 150 “Expiration of food product”
- 2/3 GSO 1016 “Microbiological criteria for foodstuffs – Part 1”
- 2/4 GSO 1694 “General principles of food hygiene”
- 2/5 GSO 1931 “HALAL food - Part 1: General requirement”
- 2/6 GSO/CAC 193 “General Standard for contaminants & toxins in food”
- 2/7 GSO .... “Food Additives”<sup>1</sup>

### 3 Definitions:

**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 Sections 4/1/1 and 4/1/2 through the following processes:

- (a) Boiled or steamed soybeans, or the mixture of boiled or steamed soybeans and grains, are fermented with naturally occurring or cultivated microorganisms;
- (b) Mixed with salt or brine and others;
- (c) 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 4.2 Quality Factors; and
- (d) Processed by heat or other appropriate means, before or after being hermetically sealed in a container, so as to prevent spoilage.

### 4 Essential composition and quality factors:

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<sup>1</sup> Will be approved by GSO in the future.

## 4/1 Composition

### 4/1/1 Basic Ingredients

- (a) Soybeans
- (b) Salt
- (c) Potable water
- (d) Naturally occurring or cultivated microorganisms (*Bacillus* spp. and/or *Aspergillus* spp., which are not pathogenic and do not produce toxins)

### 4/1/2 Optional Ingredients

- (a) Grains and/or flour (wheat, rice, barley, etc.)
- (b) Yeast and/or yeast extracts
- (c) *Lactobacillus* and/or *Lactococcus*
- (e) Sugars
- (f) Starch syrup
- (g) Natural flavouring raw materials (powder or extract from dried fish or seaweed, spices and herbs, etc.)

## 4/2 Quality Factors

	Fermented soybean paste manufactured with soybean only	Fermented soybean paste manufactured with soybean and grains
Total nitrogen (w/w) <sup>2</sup>	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)	Not more than 60 %	

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

### 4/3 Classification of "Defectives"

Any container that fails to meet the applicable quality requirements, as set out in Section 4/2, should be considered a "defective".

### 4/4 Lot Acceptance

<sup>2</sup> The nitrogen conversion factor of 5.71 should be used.

A lot should be considered as meeting the applicable quality requirements referred to in Section 4/2, when the number of "defectives", as defined in Section 4/3, does not exceed the acceptance number (c) of the appropriate sampling plans.

### 5 Food additives:

Acidity regulators, antioxidants, colours, flavours enhancers, preservatives, stabilizers and sweeteners listed in the standard referred to in section 2/7 are acceptable for use in food conforming to this standard.

#### 5/1 Antioxidant:

INS no.	Name of Food Additive	Maximum level
539	Sodium thiosulphate	30 mg/kg as sulphur dioxide

#### 5/2 Colour:

INS no.	Name of Food Additive	Maximum level
101 (i)	Riboflavin, synthetic	10 mg/kg

#### 5/3 Preservatives:

INS no.	Name of Food Additive	Maximum level
200	Sorbic acid	1000 mg/kg as sorbic acid, singly or in combination
202	Potassium sorbate	
203	Calcium sorbate	
210	Benzoic acid	1000 mg/kg as benzoic acid, singly or in combination
211	Sodium benzoate	
212	Potassium benzoate	

#### 5/4 Sweeteners:

INS no.	Name of Food Additive	Maximum level
950	Acesulfame potassium	350 mg/kg
954 (iv)	Sodium saccharin	200 mg/kg

#### 5/5 Processing Aids:

INS no.	Name of Processing Aid
	Protease
	Hemicellulase
	Lipase
472c	Citric and fatty acid esters of glycerol
270	Lactic acid
452(i)	Sodium polyphosphates, glassy
452(ii)	Potassium polyphosphates

#### 6 Contaminants:

The products covered by this Standard shall comply with the maximum levels of those mentioned in the standard referred to in section 2/6. The products covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

#### 7 Hygiene:

7/1 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 standard referred to in section 2/4, and other relevant Codex texts, such as Codes of Hygienic Practice and Codes of Practice.

7/2 The products should comply with any microbiological criteria established in accordance with the standard referred to in section 2/3.

#### 8 Weights and Measures:

### **8/1 Minimum Fill**

The container should be well filled with the product which should occupy not less than 90% (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 products, minimum fill may not be applied to some types of products.

### **8/2 Classification of Defectives**

A container that fails to meet the requirement for minimum fill of section 8/1 should be considered as a “defective”.

### **8/3 Lot Acceptance**

A lot should be considered as meeting the requirements of section 8/1 when the number of “defectives”, as defined in section 8/2 does not exceed the number (c) of the appropriate sampling plan.

## **9 Labeling:**

Without prejudice to what is stated in the Gulf standards mentioned in items 2/1 and 2/2, the following shall be included in the label:

### **9/1 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.

### **9/2 “HALAL” Claim**

Claims on “Halal” fermented soybean paste shall be according to the standard referred to in section 2/5.

### **9/3 Labeling of non-retail containers**

Information for non-retail containers shall be given on the container or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer, packer or distributor, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer or distributor may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

## **10 Methods of analysis and sampling:**

### **10/1 Determination of Total Nitrogen**

According to AOAC 984.13.

### **10/2 Determination of Amino Nitrogen**

According to AOAC 920.154 B (*Sorensen* Method) on the following conditions:

Preparation of test samples

Weigh 2 g of sample into a 250 ml beaker and mix the sample with 100 ml of cold (15°C) NH<sub>3</sub>-free H<sub>2</sub>O and then stir the mixture for 60 min. Next, decant the mixture through a quantitative filter and collect the filtrate in a 100 ml volumetric flask.

Endpoint

A pH meter shall be used to determine the endpoint instead of optical verification of colours.

### **10/3 Determination of Moisture**

According to AOAC 934.01 at a drying temperature of 70°C or lower.

**Reference:**

- Codex 298R:2009 Regional Standard for Fermented Soybean Paste

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