

CODEX ALIMENTARIUS

INTERNATIONAL FOOD STANDARDS



Food and Agriculture
Organization of
the United Nations



World Health
Organization

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STANDARD FOR *GOCHUJANG*

CXS 294-2023

Adopted in 2023

1. SCOPE

This standard applies to the product defined in Section 2 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. This standard does not apply to chili paste or chili sauce products having red pepper as the main ingredient.

2. DESCRIPTION

2.1 Product definition

Gochujang is a red or dark red pasty fermented food manufactured through the following process:

- (a) saccharified material is manufactured by saccharifying grain starch with powdered malt, or by naturally occurring microorganisms (which are not pathogenic and do not produce toxin) during fermentation;
- (b) salt is mixed with the saccharified material obtained in the above (a). Subsequently, the mixture must be fermented and aged;
- (c) red pepper powder is mixed and other ingredients may be mixed with the mixture before or after the fermentation process (b) above; and
- (d) 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

- (a) grains
- (b) red pepper (*Capsicum annuum* L.) powder
- (c) salt
- (d) potable water

3.1.2 Optional ingredients

- (a) powdered *meju*;^{*}
 - * Fermented material of soybeans or the mixture of soybeans and grains using microorganisms (bacteria, moulds and yeasts) in a natural state.
- (b) soybeans;
- (c) sugars as defined in the *Standard for Sugars* (CXS 212-1999);¹
- (d) distilled alcohol derived from agricultural products;
- (e) soy sauce;
- (f) fermented soybean paste;
- (g) fish sauce as defined in the *Standard for Fish Sauce* (CXS 302-2011);²
- (h) sea food extract;
- (i) fermented wheat protein;
- (j) fermented rice;
- (k) yeast extract;
- (l) hydrolyzed vegetable protein;
- (m) seasoned vegetables;
- (n) vinegar; and
- (o) other ingredients.

3.2 Quality factors

3.2.1 Quality factors

- (a) Capsaicin not less than 10.0 µg/mL (w/w)
- (b) Crude protein not less than 3.0% (w/w)
- (c) Moisture not more than 60.0% (w/w)

3.2.2 *Gochujang* shall have its unique flavour, odour, and the following qualities.

- (a) Colour: The product shall have a red or dark red colour derived from red pepper (*Capsicum annuum* L.).
- (b) Taste: The product shall have a hot and savoury taste. It may also have a somewhat sweet taste and a somewhat salty taste.
- (c) Texture: The product shall have an appropriate level of viscosity.

3.2.3 Defects and allowances

The product shall be practically free from defects such as seeds, peels, grit or any other extraneous matter.

3.3 Classification of “defectives”

Any container that fails to meet the applicable quality requirements, as set out in Section 3.2, 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, when the number of “defectives”, as defined in Section 3.3, does not exceed the acceptance number (c) of the appropriate sampling plans with an acceptable quality level (AQL) of 6.5.

4. FOOD ADDITIVES

4.1 Acidity regulators, antioxidants, flavour enhancers, preservatives, and stabilizers used in accordance with Table 1 and Table 2 of the *General Standard for Food Additives* (CXS 192-1995)³ in food category 04.2.2.7 (fermented vegetable [including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera] and seaweed products, excluding fermented soybean products of food categories 06.8.6, 06.8.7, 12.9.1, 12.9.2.1 and 12.9.2.3) are acceptable for use in foods conforming to this standard.

4.2 The flavourings used in products covered by this standard should comply with the *Guidelines for the Use of Flavourings* (CXG 66-2008).⁴

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).⁵

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

6. HYGIENE

6.1 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 *General Principles of Food Hygiene* (CXC 1-1969)⁶ and other relevant Codex texts such as codes of hygienic practice and codes of practice.

6.2 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).⁷

7. WEIGHTS AND MEASURES

7.1 Fill of container

7.1.1 Minimum fill

- (a) 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 volume of distilled water at 20 °C which the sealed container will hold when completely filled.
- (b) Flexible containers should be filled as full as commercially practicable.

7.1.2 Classification of “defectives”

A container that fails to meet the requirement for minimum fill of Section 7.1.1 should be considered as a “defective”.

7.1.3 Lot acceptance

A lot shall be considered as meeting the requirement of Section 7.1.1 when the number of “defectives”, as defined in Section 7.1.2, does not exceed the acceptance number (c) of the appropriate sampling plans with an AQL of 6.5.

7.2 Minimum weight

As for a product whose indicated weight is not more than 1 000 g, the tolerance allowed shall be less than 15 g. As for a product whose indicated weight is 1 000 g–5 000 g, the net weight of the product shall not be less than 98.5 percent of the indicated weight. As for a product whose indicated weight is more than 5 000 g, the net weight of the product shall not be less than 99 percent of the indicated weight.

7.2.1 Classification of “defectives”

A container that fails to meet the requirement for minimum weight of Section 7.2 shall be considered a “defective”.

7.2.2 Lot acceptance

A lot should be considered as meeting the requirements of Section 7.2. when the number of “defectives”, as defined in Section 7.2.1, does not exceed the acceptance number (c) of the appropriate sampling plans 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),⁸ the following specific provisions apply.

8.1 Product name

8.1.1 The name of product shall be “*gochujang*”.

8.1.2 The name of product can be labelled in accordance with domestic laws, so that its characteristics may be expressed.

8.2 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).⁹

9. 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)¹⁰ relevant to the provisions in this standard, shall be used.

NOTES

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- ¹ FAO and WHO. 1999. *Standard for Sugars*. Codex Alimentarius Standard, No. CXS 212-1999. Codex Alimentarius Commission, Rome.
- ² FAO and WHO. 2011. *Standard for Fish Sauce*. Codex Alimentarius Standard, No. CXS 302-2011. Codex Alimentarius Commission, Rome.
- ³ FAO and WHO. 1995. *General Standard for Food Additives*. Codex Alimentarius Standard, No. CXS 192-1995. Codex Alimentarius Commission, Rome.
- ⁴ FAO and WHO. 2008. *Guidelines for the Use of Flavourings*. Codex Alimentarius Guideline, No. CXG 66-2008. Codex Alimentarius Commission, Rome.
- ⁵ 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.
- ⁶ FAO and WHO. 1969. *General Principles of Food Hygiene*. Codex Alimentarius Code of Practice, No. CXC 1-1969. Codex Alimentarius Commission, Rome.
- ⁷ 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.
- ⁸ FAO and WHO. 1985. *General Standard for the Labelling of Pre-packaged Foods*. Codex Alimentarius Standard, No. CXS 1-1985. Codex Alimentarius Commission, Rome.
- ⁹ 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.
- ¹⁰ FAO and WHO. 1999. *Recommended Methods of Analysis and Sampling*. Codex Alimentarius Standard, No. CXS 234-1999. Codex Alimentarius Commission, Rome.