

## REGIONAL STANDARD FOR TEMPE (CODEX STAN 313R-2013)

### 1. SCOPE

This standard applies to tempe as defined in Section 2 below and intended for human consumption. It does not apply to those that undergone further processing other than freezing.

### 2. DESCRIPTION

Tempe is a compact, white, cake-form product, prepared from dehulled boiled soybeans through solid state fermentation with *Rhizopus* spp.

### 3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

#### 3.1. Composition

Product covered by this standard shall consist of the following ingredients:

- (a) Soybeans (any variety);
- (b) Mould of *Rhizopus* spp. (*R.oligosporus*, *R.oryzae* and/or *R.stolonifer*) mix with cooked rice powder, rice bran powder and/or wheat bran powder as an inocula.

#### 3.2. Quality Factors

##### 3.2.1 Organoleptic

- (a) Texture: Compact and not easily disintegrated upon cutting with knife.
- (b) Colour: White colour of luxurious growth of mycellium of *Rhizopus* spp.
- (c) Flavour: Characteristic of tempe flavour, nutty, meaty, and mushroom-like.
- (d) Odour: Characteristic of fresh tempe odour without ammonia smell.

##### 3.2.2 Foreign Matters

Tempe shall be free from foreign matters (e.g. other beans, small stone, husk etc).

##### 3.2.3 Analytical Requirements

- (a) Moisture content 65% w/w max.
- (b) Protein content 15% w/w min.
- (c) Lipid content 7% w/w min.
- (d) Crude fibre 2.5% w/w max.

#### 3.3 Classification of “defectives”

Any container that fails to meet the applicable quality requirements referred to in Section 3.2 should be considered as a “defective”.

### 4. FOOD ADDITIVES

- 4.1 None permitted.
- 4.2 Processing aids

Processing aids can be used in these products to control acidity during soaking the beans.

### 5. CONTAMINANTS

- 5.1 The products covered by this Standard shall comply with the maximum levels (MLs) of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

5.2 The products covered by this Standard shall comply with the maximum residue limits (MRLs) for pesticides established by the Codex Alimentarius Commission.

## 6. HYGIENE

6.1 It is recommended that the product covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the *General Principles of Food Hygiene* (CAC/RCP 1-1969), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

6.2 The products should comply with the microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods* (CAC/GL 21-1997).

## 7. LABELLING

7.1. The products covered by the provisions of this Standard shall be labelled in accordance with the *General Standard for the Labelling of Prepacked Foods* (CODEX STAN 1-1985)

### 7.2 Name of the product

The name of the product to be shown on the label shall be “Tempe”.

## 8. METHODS OF ANALYSIS AND SAMPLING

Provision	Method	Principle	Type
Moisture Content	AOAC 925.09	Gravimetry (vacuum oven)	I
Protein Content	NMKL 6, 2004 or AOAC 988.05 or AACCI 46-16.01 (Nitrogen factor 5.71)	Titrimetry, Kjeldahl digestion	I
Lipid Content	AOAC 983.23	Gravimetry (Roese-Gottlieb)	I
Crude Fibre	ISO 5498:1981	Ceramic fiber filtration	I