



**DRAFT TANZANIA STANDARD**

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**Soy yoghurt (curd)- Specification**

## Soy Yoghurt — Specification

### 0. Foreword

Soy yoghurt is product with higher water content, and is made from soybean liquid preparation and coagulated by adding coagulant. Soy yoghurt prepared by fermentation of aqueous extract of soybean.

The fermentation is carried out by the mixed cultures of Lactic acid bacteria or any other suitable cultures. It may be plain or sweetened and/or flavored, dairy or non dairy product.

The health benefits of soy has led to the innovation of the soy products and expanded the vegetarian choices for vegans.

This Tanzania Standard has been developed to keep up with advancements of the food industry and to ensure the safety and quality of the product traded in the markets in order to safeguard the health of the consumers.

In preparation of this Tanzania standard assistance is derived from the following publications;  
The Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011, -for India Authority

In reporting the result of a test or analysis made in accordance with the Tanzania Standard, if the final value observed or calculated is to be rounded off, it shall be done in accordance with TZS 4 (see clause 2)

### 1. Scope

This Tanzania standard prescribes the requirements and the methods of sampling and test for soy (curd) yoghurt derived soybean (*Glycine max*) and/or soy derivatives intended for human consumption.

### 2. Normative references

The following referenced documents referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CODEX STAN 192, *General standard for Food additives*

TZS 268, *General atomic absorption spectrophotometric method for determination of lead in food and food stuffs.*

TZS 109, *General principles of food hygiene*

TZS 538, *Labelling of pre-packaged foods*

EAS 161, *Milk and milk products — Sampling — Inspection by attributes — Specification*

TZS 118, *Microbiology of the food chain -- Horizontal method for the enumeration of microorganisms --Part 1: Colony count at 30 degrees C by the pour plate technique*

TZS 122, *Microbiology of food and feeding stuffs – Horizontal method for the detection of salmonella spp.*

TZS 481, *Nutrition labelling — Requirements*

TZS 482, *Claims — General requirements*

TZS 550, *Use of nutrition and health claims — Requirements*

TZS 950, *Milk and milk products -- Enumeration of colony-forming units of yeasts and/or moulds --Colony-count technique at 25 degrees C*

TZS 799, *Foodstuffs — Determination of aflatoxin B1, and the total content of aflatoxins B1, B2, G1 and G2 in cereals, nuts and derived products — High-performance liquid chromatographic method*

### 3. Terms and definitions

For the purposes of this document, the following terms and definitions shall apply.

#### 3.1

##### **soy yoghurt (curd)**

product prepared by lactic acid fermentation of aqueous extract of soybean using mixed cultures of 2 strains, namely, *Streptococcus thermophilus* and *Lactobacillus bulgaricus*.

#### 3.2

##### **non-dairy product**

product prepared without dairy ingredients

#### 3.3

##### **with low dairy ingredients**

product where is prepared with dairy ingredient

#### 3.4

##### **sweetened soy yoghurt**

product to which sugar has been added

#### 3.5

##### **sugar**

any carbohydrate sweetening substance

#### 3.6

##### **plain soy yoghurt**

product to which no sugar and food additives has been added to impart sweet taste.

#### 3.7

##### **flavoured soy yoghurt**

product to which flavouring foods or other flavouring ingredients has been added

#### 3.8

##### **fruit soy yoghurt**

product to which fruits have been added

#### 3.9

##### **food grade packaging materials**

packaging material, made of substances which are safe and suitable for their intended use and which will not impart any toxic substance or undesirable odour or flavour to the product

### 4. Requirements

#### 4.1 Raw Materials

4.1.1 Soy yoghurt (curd) shall be obtained from the following ingredients and shall comply with the relevant standard;

- i. Soybean and/or soy derivatives
- ii. lactic acid bacteria (*Streptococcus thermophilus* or *Lactobacillus bulgaricus*) or any other suitable culture individually or in combination.
- iii. Potable water

#### 4.1.2 Optional Ingredients

Soy yoghurt (curd) shall be obtained from but not limited to the following optional ingredients and shall comply with the relevant standard;

- (i) fruits
- (ii) salt
- (iii) flavors
- (iv) sugar
- (v) spices, seasoning and condiments
- (vi) Milk/ reconstituted milk may be added in the aqueous extract of soybean. If added, it shall not exceed 25% of the final product
- (vii) Alternate Culture: Fermented Soybean Curd (made with *S. thermophilus* + *L. bulgaricus*) is prepared by mixed culture of *Lactobacillus* species along with *Streptococcus thermophilus*.

#### 4.1.3 Types

The soy yoghurt shall be any of the following types:

- (i) plain
- (ii) sweetened
- (iii) Flavoured,
- (iv) Flavoured and sweetened
- (v) Fruit added or in combination with the above
- (vi) Non-dairy product
- (vii) With low- dairy ingredient

#### 4.2 General Requirement

Soy yoghurt shall;

- (i) Be free from extraneous matter and harmful material.
- (ii) Be of uniform composition,
- (iii) Have a characteristic texture of the soy yoghurt
- (iv) Be free from off flavours and odour

#### 4.3 Specific requirements

Soy yoghurt shall comply with the specific requirements given in Table 1 when tested in accordance with test methods specified therein

**Table 1 Specific requirements for soy yoghurt.**

S/N	Requirement	Limits	Test method
1	Total solids, % m/m min	10.0	ISO 13580
2	Fat, percent by mass,max	2.0	ISO 11870
3	Protein (N x 6.25), % m/m, min	3.0	ISO 8968-1
4	Acidity, as lactic acid, % m/m ,max	1.7	ISO 26323
5	pH,	4.0-4.5	ISO 26323
6	Urease Activity (change in pH), N/mg/min	0.5	ISO 5506

## 5. Food additives

Only the food additives permitted in CODEX STAN 192 may be used

## 6. Contaminants

### 6.1 Pesticide residues

Soy yoghurt shall comply with those maximum pesticide residue limits established by CODEX Alimentarius commission for similar commodities.

### 6.2 Heavy metals

6.2.1 When tested in accordance with appropriate test methods Soy yoghurt shall not contain heavy metal contaminants in amounts which exceed those specified in Table 3 when tested in accordance with test methods specified therein.

**Table 3 — Heavy metal limits in Soy yoghurt**

S/N	Heavy metals	Maximum limit (mg/kg)	Test method
i.	Lead	0.2	TZS 268
ii.	Cadmium	0.1	

6.2.2 The product shall not contain other heavy metal contaminants in amounts which may represent a hazard as established in Codex Stan 193

### 6.3 Mycotoxins

Soy yoghurt shall comply with those maximum levels of mycotoxins specified in the table 3 when tested in accordance with test methods specified therein.

**Table 3 — Maximum limits for mycotoxins in soy yoghurt**

S/N	Mycotoxins	Requirement, $\mu\text{g/kg}$ , <i>max</i>	Test method
i.	<i>Total Aflatoxin</i>	10	TZS 799 TZS 331
ii.	<i>Aflatoxin B1</i>	5	
iii.	<i>Fumonisin</i>	2000	

## 7. Hygiene

7.1 Soy yoghurt shall be produced, prepared and handled in accordance with TZS 109.

7.2 Soy yoghurt shall conform to the Microbiological limits established in table 2:

**Table 2 — Microbiological limits for soy yoghurt**

s/n	Requirement	Limits	Test method
1	Total plate count, cfu/m	$10^2$	TZS 118
2	<i>E.coli</i> count, per g, Max	Absent	TZS 130

3	<i>Salmonella</i> sp.	Absent	TZS 122
4	Yeasts and mould count, per g, max	10 <sup>2</sup>	TZS 125

## 8. Packaging

Soy yoghurt shall be packaged in food grade packaging material which will safeguard the hygienic, nutritional, and organoleptic qualities of the product.

## 9.) Labelling

9.1 In addition to the requirements in TZS 538, the following specific labelling requirements shall apply and shall be legibly and indelibly marked

- i. The name of the product to be declared on the label shall be **“Soy yoghurt”**
- ii. Type
- iii. Net contents by weight in metric ('Système International') units.
- iv. Name, location and physical address of the manufacturer
- v. Country of origin
- vi. Lot identification
- vii. Date of manufacturing
- viii. Storage and handling conditions
- ix. Expiry date
- x. Instructions for disposal of used package
- xi. List of ingredients
- xii. Declaration of allergens

### 9.2 Nutrition labelling

The amount of micronutrients in the soy yoghurt shall be declared on the label in accordance with TZS 481.

### 9.3 Nutrition and health claims

Soy yoghurt may have claims on the importance of the micronutrients in nutrition and health. Nutrition and health claims shall comply with the requirements given in TZS 482 and TZS 550

10.4 The language on the label shall be “Kiswahili”, ‘English’ or both. A second language may be used depending on the designated market.

8.5 The packages of the capsules may also be marked with the TBS Standards Mark of Quality

NOTE — The TBS Standards Mark of Quality may be used by the manufacturers only under licence from TBS. Particulars of conditions under which the licences are granted, may be obtained from TBS









