

**Draft Tanzania Standard**

**Fried sardine - Specification**

*Draft Standard for Comments Only*

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**TANZANIA BUREAU OF STANDARDS**

# Fried sardine – Specification

## 0. Foreword

The demand for processing and consumption of fried sardine is increasing thus, the need to ensure the safety and quality of the product produced and/or marketed in Tanzania.

In reporting the result of a test or analysis made in accordance with this 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 specifies requirements, methods of sampling and test for fried sardine intended for human consumption.

## 2 Normative References

The following referenced documents are indispensable for the application 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.

TZS 4- Rounding off numerical values

TZS 109, Food processing units – code of hygiene

TZS 118 Microbiology of food and animal feeding stuffs – Horizontal method for enumeration of micro – organisms – Colony count technique at 30°C

TZS 119 Microbiology – General guidance for the enumeration of *coliforms* – Most Probable Number technique (MPN).

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

TZS 123 Microbiological - examination for *clostridium perfringens*

TZS 125 Microbiology of food and animal feeding stuffs – Horizontal method for enumeration of coagulase – positive staphylococci (*Staphylococcus aureus* and other species)

TZS 131 Microbiology- General guidance for enumeration of yeast and moulds-Colony count technique at 25°C

TZS 132 Edible common salt – Specification

TZS 538 Packaging and labelling of foods

TZS 731:2007 / ISO 7251:2005 – Microbiology of food and feeding stuffs – Horizontal method for detection and enumeration of presumptive *Escherichia Coli* – Most Probable Number Technique

TZS 789:2018- Portable water – Specification

TZS 961:2007/ISO 1666, Starch- Determination of moisture content - Oven-drying method

TZS 1331: 2017: /ISO 660- Animal and vegetable fats and oils — Determination of acid value and acidity

TZS 2230:2018 Lead determination in fish and fishery product

Codex Stan 192- Codex General Standard for food additives

AOAC 2015.01, Heavy metals in food

### **3 Terms and definitions**

For the purpose of this standard the following terms and definitions shall apply;

#### **3.1 fried sardine**

sardine that has been prepared by frying using cooking oil/fat

#### **3.2 frying**

cooking of sardine in boiling oil or fat

#### **3.3 food grade material**

material that will not transfer non-food chemicals into the food and contains no chemicals which would be hazardous to human health

### **4 Requirements**

#### **4.1 General requirements**

##### **4.1.1 Raw materials**

**4.1.1.1** Fried sardines shall be prepared from fresh, sound sardine which is of an acceptable quality and fit for human consumption

**4.1.1.2** Water used for processing shall be potable complying with TZS 789

**4.1.1.3** Edible Fat/oil used shall conform to the specific standard

NOTE Using fat/oil several times may affect quality and safety of the product.

##### **4.1.2 Ingredients**

Other ingredients such as seasoning and condiments, herbs and spices conforming to applicable standards may be used in the preparation of fried sardine. When salt is used, it shall conform to TZS 132.

##### **4.1.3 Finished product**

Fried sardine shall:

- a) have characteristic colour;
- b) not show any evidence of visible fungal growth;

- c) be free from insect or mite infestation;
- d) have the characteristic odour; and
- e) not be too oily.

#### 4.2 Specific requirements

4.2.1 Fried sardines shall conform to the specific requirements in Table 1 when tested in accordance with the methods prescribed therein.

**Table 1 — Specific requirements for fried sardine**

S/N	Parameter	Maximum limits	Test method
i.	Moisture content, % m/m	12	TZS 961
ii.	Free fatty acid, moisture free base % m/m	0.5	TZS 1331

4.2.2 Fried sardine shall be presented not less than 90 % whole.

### 5 Contaminants

#### 5.1 Heavy metals

Fried sardine shall comply with the heavy metal limits given in Table 2.

**Table 2 — Heavy metal limits for fried sardine**

S/No.	Heavy metal	Maximum limit, mg/kg	Test method
i)	Lead	0.3	TZS 2230
ii)	Cadmium	0.3	AOAC 2015.01
iii)	Mercury	0.5	

#### 5.2 Pesticide residues

Fried sardine shall conform to maximum residue limits for pesticide residues established by the Codex Alimentarius Commission for this commodity.

### 6.0 Hygiene

6.1 The product shall be prepared and handled in accordance with TZS 109 and shall comply with microbiological limits given in Table 3.

Table 3 — Microbiological limits for fried sardine

S/N	Type of microorganism	Maximum limit	Test method
i.	<i>Salmonella</i> , in 25 g	Absent	TZS 122
ii.	<i>Escherichia coli</i> , *MPN/g	Absent	TZS 731
iii.	<i>Staphylococcus aureus</i> , per g	$2 \times 10^3$	TZS 125
iv.	Total viable count, CFU/g	$10^6$	TZS 118
v.	<i>Vibrio spp.</i> , per g.	Absent	TZS 119
vi.	Yeast and moulds, CFU/g	$10^3$	TZS 131
vii.	<i>Clostridium perfringens</i> , per g	Absent	TZS 123
* <i>Escherichia coli</i> strain 0157: H 7 shall be absent.			

6.2 The product shall be free from any pests.

## 7 Sampling and test

### 7.1 Sampling

Sampling of fried sardine shall be done according to the Codex general guideline on sampling (CAC/GL 50-2004).

### 7.2 Test

Fried sardine shall be done according to test methods prescribed in Table 1, 2 and 3 of this standard.

## 8 Food additives

Food additives may be used in the preparation and processing of fried sardine in accordance with CODEX STAN 192.

## 9 Weights and Measures

Fried sardine shall be packaged in accordance with Weights and Measures requirements of the destination country.

## 9 Packing, marking and labeling

### 9.1 Packing

Fried sardine shall be packed in suitable food grade materials.

### 10.2 Marking and labeling

In addition to the requirements of TZS 538; the following labeling requirements shall apply and shall be legibly and indelibly marked

- a) Name of the product shall be (Fried sardine).
- b) A complete list of ingredients
- c) Net content
- d) Name, physical and postal address of the manufacturer or packer
- e) Country of origin
- f) Date of manufacture and expiry
- g) Brand name of the product
- h) Storage condition
- i) Batch or code number
- j) Instruction for use
- k) The language on the label shall be Swahili and/or English Another language may be used depending on the designated market.

**10.3** The containers 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 license from TBS. Particulars of conditions under which the licenses are granted, may be obtained from TBS.**