

**Draft Tanzania Standard**

**Bivalve molluscs – Specification**

*Draft Standard for Comments Only*

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**TANZANIA BUREAU OF STANDARDS**

# Bivalve molluscs - Specification

## 0. Foreword

Bivalve molluscs are harvested alive from a harvesting area either approved for direct human consumption or further processing, e.g. relaying or depuration prior to human consumption, thus the need to ensure its safety and quality.

In preparation of this Tanzania standard assistance was drawn from Standard for live and raw bivalve molluscs published by Codex Alimentarius Commission.

In reporting the result of a test or an 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 live and raw bivalve molluscs that have been shucked and/or frozen, and/or processed.

## 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 - General

TZS 447:2015, Fish and fishery products - determination of histamine

TZS 538 Packaging and labelling of foods

CAC/GL 50, General guidelines on sampling

CAC/RCP 52, Code of practice for fish and fishery products

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

AOAC 959.08, Paralytic Shellfish Poison Biological Method

AOAC 2011.27, Paralytic Shellfish Toxins(PSTs) in Shellfish

CXS-192-1995, General standard for food additives

## 3 Terms and definitions

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

**3.1**

**live bivalve molluscs**

products that are alive immediately prior to consumption whose presentation includes the shell

**3.2**

**raw bivalve molluscs**

products that were alive immediately prior to the commencement of processing

**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

**3.4 depuration of seafood**

process by which marine or freshwater animals are placed into a clean water environment for a period of time to allow purging of biological contaminants (such as Escherichia coli) and physical impurities (such as sand and silt)

**4 Requirements**

**4.1 General requirements**

4.1.1 The bivalve molluscs shall be free from any foreign material that compromise safety and quality.

4.1.2 The bivalve molluscs shall possess organoleptic characteristics associated with freshness.

4.1.3 The bivalve molluscs shall be free off distinct objectionable odours or flavours indicative of decomposition or rancidity.

4.1.4 During storage or transportation, live bivalve molluscs shall be kept at a temperature that does not adversely affect its safety or viability.

4.1.5 Live bivalve molluscs shall not be re-immersed in or spread with water they have been packaged for retail sale

**4.2 Specific requirements**

The bivalve molluscs shall conform to the compositional quality requirements shown in Table 1.

Table 1 — Compositional requirements of bivalve molluscs

Provision	Requirements	Method of test
Histamine, mg per 100 g, max	40	TZS 447
Dead or damaged bivalve molluscs, %,max	5	Annex A
Deep Dehydration, %, max	10	Annex B

8 Food additives

Food additives are permitted only in raw bivalve molluscs in which the additive used shall comply with the limits established in the Codex General Standard for Food Additives (CXS 192-1995).

**5 Contaminants**

5.1 Live bivalve molluscs shall comply with the following biotoxins provisions measured in the whole body or any edible part separately as indicated in Table 2.

Table 2—Bioxin limits of live bivalve molluscs

Name of biotoxin groups	Maximum level mg/kg of molluscs flesh	Methods of test
Saxitoxin (STX)	0.8	AOAC 959.08/ AOAC 2011.27
Okadaic acid (OA)	0.16	
Domoic acid (DA)	20	
Brevetoxin (BTX)	200	
Azaspiracid (AZP)	0.16	

**5.2 Pesticide residues**

Bivalve molluscs products shall conform to maximum residue limits for pesticide residues established by the Codex Alimentarius Commission for this commodity.

**6 Hygiene**

6.1 Bivalve molluscs shall be produced and handled in a hygienic manner in accordance with TZS 109 and CAC/RCP 52.

6.3 When tested in accordance with TZS 731, *E. coli* shall not exceed 700MPN/g.

**7 Sampling and test**

7.1 Sampling

Sampling of bivalve molluscs shall be done according to the Codex general guideline on sampling (CAC/GL 50).

7.2 Test

Testing of bivalve molluscs shall be done according to test methods prescribed in Table 1,2 and in other parts of this standard.

**9 Weights and Measures**

Bivalve molluscs shall be packaged in accordance with Weights and Measures requirements of the destination country.

**10 Packing, marking and labeling**

### 10.1 Packing

Bivalve molluscs 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 as "bivalve molluscs" and common or species name
- b) mode of presentation;
- c) date and location of harvest for live bivalve molluscs;
- d) durability or shelf life for live bivalve molluscs;
- e) packing medium for raw bivalve molluscs;
- f) name and physical address of the processor;
- g) batch or lot number;
- h) content declaration by weight, count, count per unit weight, volume or per package;
- i) instruction for use;
- j) storage instructions; and
- 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.**

**Annex A  
(normative)  
Determination of dead or damaged bivalve molluscs**

Dead or damaged bivalve molluscs shall be determined by counting the number of bivalve molluscs in the container or a representative, then the percentage of dead or damaged bivalve molluscs is determined by dividing the amount of dead or damaged with the total amount of bivalve molluscs in the container or representative sample

**Calculation:**

$$\text{Dead or damaged bivalve mollusks \%} = \frac{W_1}{W_0} \times 100$$

Where:

$W_1$  = Amount of dead or damaged bivalve molluscs

$W_0$  = Total amount of bivalve molluscs in container or representative sample

**Annex B  
(normative)  
Determination of Deep Dehydration**

Deep Dehydration is the condition that results from excessive loss of body water/moisture greater than 10% of the weight of the bivalve molluscs in the sample unit or greater than 10% of the surface area of the block. Excessive loss of moisture clearly shown as white or abnormal colour on the surface which masks the colour of the flesh and penetrates below the surface, and cannot be easily removed by scraping with a knife or other sharp instrument without unduly affecting the appearance of the bivalve molluscs.

When declared on the label, percentage of deep dehydrated bivalve molluscs shall be determined by counting the number of bivalve molluscs in the container or a representative sample that shows excessive loss of water/moisture then dividing by the total amount of bivalve molluscs in the container or representative sample

**Calculation:**

$$\text{Deep dehydration \%} = \frac{W_1}{W_0} \times 100$$

Where:

$W_1$  = Amount of dehydrated molluscs

$W_0$  = Total amount of bivalve molluscs in container or representative sample