

## **DRAFT TANZANIA STANDARD**

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### **Dried cassava pellets — Specification**

Draft Standard for Stakeholders' Comments

**TANZANIA BUREAU OF STANDARDS**

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## 0. Foreword

0.1 Dried cassava pellets are locally produced and some is imported. The demand for these products is increasing since pelletizing of cassava chips and/or flour results into volume reduction by 25-40% to produce a uniform product thus facilitate bulk handling during transportation, loading and reloading and to eliminate the dustiness of the product. The demand for this product is increasing thus the need to ensure the safety and quality of dried cassava pellets produced and / or marketed in Tanzania.

0.2 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 prescribes requirements, methods of sampling and testing for dried cassava pellets.

## 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 122-1:2018/ISO 6579-1: 2017 - Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of *Salmonella*- Part 1: Detection of *Salmonella spp*

TZS 465: 2010 (3rd Ed), Dried cassava chips — Specification

TZS 472: 2010 (3rd Ed), Cassava and cassava products — Determination of total cyanogen's — Enzymatic assay method

TZS 538:2015 (EAS 38:2014) - Labelling of pre-packaged foods — General requirements

TZS 731: 2018/ ISO 7251: 2006- Microbiology of food and animal feeding stuffs- Horizontal method for the detection and enumeration of presumptive *Escherichia coli*- Most probable number technique

TZS 961:2017 (1st Ed), Starch – Determination of moisture content – Oven-drying method

TZS 963 (Part 1):2017 (1st Ed), Starch and derived products – Heavy metals content – Part 1 – Determination of arsenic content by atomic absorption spectrometry

TZS 963 (Part 2):2017 (1st Ed), Starch and derived products – Heavy metals content – Part 2 – Determination of mercury content by atomic absorption spectrometry

TZS 963 (Part 3):2017 (1st Ed), Starch and derived products – Heavy metals content – Part 3 – Determination of lead content by atomic absorption spectrometry with electro-thermal atomization

TZS 963 (Part 4):2017 (1st Ed), Starch and derived products – Heavy metals content – Part 4 – Determination of cadmium content by atomic absorption spectrometry with electro-thermal atomization

TZS1276: 2010 (1st Ed), Fresh sweet cassava — Specification

TZS 2044:2017/ISO 5985:2002 Animal feeding stuffs – Determination of ash insoluble in hydrochloric

TZS 2426-1: 2020/ ISO 21527-1: 2008- Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of yeasts and moulds - Part 1: Colony count technique in products with water activity greater than 0.95

ISO 10520, *Native starch — Determination of starch content — Ewers polarimetric method*

### **3 Terms and definitions**

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

#### **3.1**

##### **dried cassava pellets**

dried and hardened cylindrical particulate material produced through conventional chipping/ grating, drying, milling and pelletization into a uniform appearance and texture

#### **3.2**

##### **foreign matter**

inorganic matter such as sand, glass, metal, stones, clay, mud and organic matter such as chaff, straw, weed seeds and insects or insects fragments, rodent hairs

#### **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 Cassava pellets shall be produced from cassava chips and /or flour complying to TZS 465 and TZS 466, respectively.

4.1.2 Dried cassava pellets shall be

- a) uniformly light brown in colour,
- b) free from objectionable odour with no sign of deterioration after 90 days of storage
- c) tasteless,
- d) free of off flavours and odours;
- e) practically free from any living insects and foreign matter

#### **4.2 Specific requirements**

Dried cassava pellets shall conform to the compositional quality requirements shown in Table 1.

**Table 1 — Compositional Quality requirements**

Analytical characteristic	Requirement	Method of test
Potential cyanide , mg/kg, max.	10	TZS 472
Starch content, %, by mass, min.	60	ISO 10520
Moisture, % by mass, max	14	TZS 961
Crude fibre, % by mass on dry weight basis, max	5	ISO 5498
Acid insoluble ash, % by mass, max.	0.15	TZS 2044

## 5 Contaminants

### 5.1 Other contaminants

Dried cassava pellets shall comply with the maximum levels of the Codex General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193).

### 5.2 Pesticide residues

Dried cassava pellets shall conform to maximum residue limits for pesticide residues established by the Codex Alimentarius Commission for this commodity.

## 6 Hygiene

Dried cassava pellets shall be prepared and handled in a hygienic manner in accordance with TZS 102 and shall conform to microbiological limits specified in Table 2.

**Table 2 — Microbiological limits for dried cassava pellets**

Micro-organisms	Maximum limit	Method of Test
<i>Escherichia coli</i> , cfu/g,	Absent	TZS 731
<i>Salmonella</i> , per 25g	Absent	TZS 122
Yeast and mould, cfu/g, max.	10 <sup>3</sup>	TZS 2426-1

## 7 Sampling and test

### 7.1 Sampling

Sampling of dried cassava pellets shall be done according to ISO 24333.

### 7.2 Test

Testing of dried cassava pellets shall be done according to test methods prescribed in Table 1 and 2 of this standard.

## 8 Weights and Measures

Dried cassava pellets shall be packaged in accordance with Weights and Measures requirements of the destination country.

## 9 Packing, marking and labelling

### 9.1 Packing

Dried cassava pellets shall be packed in suitable food grade materials,

### 9.2 Marking and labelling

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

- a) the common name of the food product to be declared on the label shall be 'Dried cassava pellets';
- b) the net weight the name and physical address of the manufacturer / distributor;
- c) the country of origin;
- d) batch number;
- e) date of manufacture and best before date
- f) the statement 'Human Food' shall appear on the package
- g) storage conditions as 'store in a cool dry place away from contaminants'
- h) instructions on disposal of used package
- i) The language on the label shall be Swahili and/or English". Another language may be used depending on the designated market.

### 9.3 The container may also be marked with TBS Quality Mark.

NOTE: The TBS Standards Mark of Quality may be used by the manufacturers only under license from TBS. Particulars of conditions under which the license are granted may be obtained from TBS