

DRAFT ZANZIBAR NATIONAL STANDARD

Star anise— Specification

ZANZIBAR BUREAU OF STANDARDS

Foreword

This draft Zanzibar National standard has been developed by the Spices and culinary herbs Technical Committee (TCFA5). In accordance with Zanzibar Bureau of Standards general procedures, this draft standard is presented to the public in order to receive any technical comment concerns.

Technical Committee Representatives

This Draft Zanzibar National Standard was prepared by the Spices and Culinary Herbs Standard committee which consists of representatives from the following organizations:

Chief Government Chemist Laboratory Agency (CGCLA)
Kidichi spices
Ministry of Agriculture, Natural resources and Irrigation
Ministry of Health (MoH) - Zanzibar Food and drugs Agency
Ministry of Trade and Industrial Development (MTID)
Tanzania Bureau of Standards (TBS)
Zanzibar Exporter Association (ZEXA)
Zanzibar Organic Producers (ZANOP)
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Star anise— Specification

1 Scope

This draft Zanzibar National Standard specifies the requirements and the methods of sampling and test for whole and ground star anise (*Illicium verum* Hook. f. (Schisandraceae))

2 Normative references

The following referenced documents are indispensable for the application of this draft Zanzibar National Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies

CXS 193, *Codex general standard for contaminants and toxins in food and feed*

ZNS 376, *Spices and condiments — Nomenclature*

ISO 21527-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 2: Colony count technique in products with water activity less than or equal to 0.95*

ISO 4833-1, *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*

ISO 6571, *Spices, condiments and herbs — Determination of volatile oil content (hydrodistillation method)*

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.*

ISO 16050, *Foodstuffs — Determination of aflatoxin B1, and the total content of aflatoxins B1, B2, G1 and G2 in cereals, nuts and derived products*

ISO 16649-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of beta -glucuronidase-positive Escherichia coli — Part 2: Colony count technique at 44°C using 5-bromo-4- chloro -3-indolyl beta -D-glucuronide*

ISO 927, *Spices and condiments — Determination of extraneous matter and foreign matter content*

ISO 948, *Spices and condiments — Sampling*

ZNS 48, *Spices and condiments — Determination of total ash*

ZNS 49, *Spices and condiments — Determination of moisture content — Entrainment method*

ZNS 50, *Spices and condiments — Determination of acid-insoluble ash*

ZNS 61, *Packaging and labeling of food*

ZNS 88, *Code of hygienic practices for Spices and condiments*

3 Terms and definitions

For the purposes of this draft Standard, the terms and definitions given in ZNS 376 and the following apply:

3.1

star anise

product obtained from dried fruits of *Illicium verum* Hook. f. (Schisandraceae)

3.2

ground star anise

product obtained by grinding the dried fruit of *Illicium verum* Hook. f. (Schisandraceae)

3.3

foreign matter

material not usually associated with the natural component of the star anise such as sticks, stones, burlap bagging, metal, etc.

3.4**extraneous matter**

vegetative matter associated with the plant from which the product originates but not accepted as part of final product

3.5**food grade packaging material**

material which will safeguard the hygienic, safety, nutritional, technological and organoleptic qualities of the product

4 Requirements**4.1 General requirements**

Whole and ground Star anise shall

- a) have the colour, odour and pleasant aromatic flavour characteristic of the spice.
- b) be free from any foreign odour, flavour or colour especially from rancidity and mustiness.
- c) be free from living insects, and practically free from moulds, dead insects, insect fragments and rodent contamination.
- d) be free from foreign matter

4.2 Specific requirements

4.2.1 Star anise shall comply with the specific requirements given in Table 1 when tested in accordance with the test methods specified therein.

Table 1: Specific Requirements for Fenugreek

Sn	Characteristic	Requirement		Test method
		Whole	Ground	
i.	Moisture, percent by mass, Max	10	8	ZNS 49
ii.	Total ash on dry basis, percent by mass, Max	4	4	ZNS 48
iii.	Acid insoluble ash on dry basis, percent by mass, Max	0.5	0.5	ZNS 50
iv.	Volatile oil ml/100 g %m/m, min.	7	NA	ISO 6571
v.	Extraneous matter	1	NA	ISO 927

4.2.2 Ground Star anise shall be ground to such fineness that 95% of it passes through a sieve of 500 µm (0.500 mm).

5 Additives

Star anise shall be free from added colouring matter and preservatives.

6 Contaminants**6.1 Pesticides residues**

Star anise shall not exceed maximum residue limit as stipulated in the CODEX Pesticides Residues in Food Online Database.

6.2 Heavy metals

Star anise shall not exceed maximum residue limit as stipulated in CXS 193.

6.3 Aflatoxin limits

Total aflatoxin shall not exceed 10 µg/L and aflatoxin B₁ shall not exceed 5 µg/L when tested with ISO 16050.

7 Hygiene

Star anise shall be prepared under Good Hygienic Practices in accordance with ZNS 88 and shall comply with microbiological limits given in Table 3 when tested in accordance with the methods specified therein.

Table 2: Microbiological limits for Star anise

S/No	Characteristic	Requirement	Test method
i.	Total plate count, cfu/g, max.	10 ⁵	ISO 4833-1
ii.	Yeast and moulds, cfu/g, max.	10 ³	ISO 21527-2
iii.	<i>Salmonella</i> spp., per 25 g	Absent	ISO 6579
iv.	<i>Escherichia coli</i> , MPN/g, max.	Absent	ISO 16649-2

8 Packaging and labelling

8.1 Packaging

Star anise shall be packaged in food grade material that secures the integrity and the safety of the product.

8.2 labelling

8.2.1 In addition to the labelling requirements specified in ZNS 61, the containers shall also be legibly and indelibly labelled with the following:

- a) name of product;
- b) trade name or brand name if any;
- c) name and physical address of manufacturer and/or packer;
- d) batch or code number;
- e) net weight;
- f) production and best before date;
- g) country of origin;
- h) storage condition.

8.2.2 The language on the label shall be Kiswahili or Kiswahili and English. Other language may be used depending on the designated market.

9 Sampling and test

Sampling of Star anise shall be done in accordance with ISO 948.