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DRAFT ZANZIBAR NATIONAL STANDARD

Processed Artichokes – Specification

ZANZIBAR BUREAU OF STANDARDS

Foreword

This Draft Zanzibar National Standard has been prepared by Food Standard Technical committee (TCFA1). In accordance with the Zanzibar Bureau of Standards general procedures, this draft is here by presented to the public in order to receive any technical comment concerns.

Technical Committee Representatives

This draft Zanzibar National Standard was prepared by Food Technical Standard committee which consists of representatives from the following organizations:

Chief Government Chemist Laboratory Agency (CGCLA)
Ministry of Agriculture, Irrigation, Natural Resources and Livestock (MAINRL)
Ministry of Health Zanzibar (MoH)
Said Salim Bakhresa & Company LTD
The State University of Zanzibar (SUZA)
Umoja wa Wazalishaji Wadogo Wadogo Zanzibar (UWAZI)
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Processed Artichokes – Specification

1 Scope

This draft Zanzibar National Standard specifies the requirements, sampling, and test methods for processed artichokes, including hearts, bottoms, quarters, slices, or other edible portions of artichoke, preserved in brine, water, oil, or other permitted media, and packed in hermetically sealed containers 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.

AOAC 999.10, *Lead, Cadmium, Zinc, Copper, and iron in foods*

CODEX STAN 192, *General Standard for food additives*

CODEX STAN 233, *Codex Sampling plans for pre-packaged foods*

EAS 39, *Hygiene in the food and drink manufacturing industry — Code of practice*

EAS 803, *Nutrition labelling — Requirements*

EAS 805, *Use of Nutrition and health claims – Requirements*

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 degrees C using 5- bromo-4-chloro-3-indolyl beta-D-glucuronide*

ISO 1842, *Fruit and vegetable products — Determination of pH*

ISO 21527-1, *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 2447, *Fruit and vegetable products — Determination of tin*

ISO 4833-2, *Microbiology of the food chain — Horizontal method for the enumeration of microorganisms — Part 2: Colony count at 30 degrees C by the surface plating technique*

ISO 763, *Fruit and vegetable products — Determination of ash insoluble in hydrochloric acid*

ISO 8288, *Water quality — Determination of cobalt, nickel, copper, zinc, cadmium and lead — Flame atomic absorption spectrometric methods*

ISO/TS 17919, *Microbiology of the food chain — Polymerase chain reaction (PCR) for the detection of food- borne pathogens — Detection of botulinum type A, B, E and f neurotoxin-producing clostridia*

3 Terms and definitions

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

3.1

artichoke

edible portion of the vegetables included in the *Cynara cardunculus Scolymus* Group and *Cynara cardunculus Cardoon* Group, syn. *C. cardunculus* var. *altilis* DC

3.1

processed Artichokes

prepared from the edible portion of the artichoke plant (*Cynara scolymus*), by trimming, washing, cooking, and hermetically packing in permitted liquid media.

3.1

bract

modified or specialized leaf, especially associated with a reproductive structure such as a flower, inflorescence axis or cone scale

3.2

heart

central part of the head of the artichoke (3.1) without thorns and devoid of peduncles and outer bracts (3.2), leaving only the receptacle and tender inner sepals

3.3

bottom

receptacle of the head of spiny artichokes (3.1), completely devoid of bracts (3.2) and flowers in formation, remaining only the receptacle

3.4

hermetically sealed containers

containers which are designed and intended to make the product air tight to protect the contents against the entry of viable microorganisms or any other deterioration agent after closing.²

3.5

brine

Concentrated water solution of common salt

4 Requirements

4.1 Raw material

4.1.1 ingredients

The following essential ingredients shall be used in making processed Artichokes and shall comply with relevant Zanzibar Standards;

- a) Edible portion of the artichoke plant
- b) Permitted media (as per section 4.1.2)
- c) Permitted preservatives

4.1.2 types of media

- a) Brine (salt solution)
- b) Water

- c) Oil (vegetable oil)
- d) Acidified solutions (vinegar, citric acid)

4.1.3 Processed artichokes may be presented as whole, halves, quarters, slices, or other edible portions.

4.2 General requirements

4.2.1 Processed artichokes product shall

- a) not be less than **50%** of the net content (for solid-packed) or as declared.
- b) be free from off-odours and off- flavours
- c) have a characteristic colour;
- d) possess a firm but tender, not mushy texture characteristic of the product;
- e) have a uniform appearance and consistency;
- f) have not undergone any kind of deterioration or spoilage; and
- g) be clean and free from foreign matter.

4.3 Specific requirements

Processed artichokes product 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 Processed artichokes

	Characteristic	Limit	Test method
i.	Acid insoluble ash, %, max.	0.02	ISO 763
ii.	pH	4.6	ISO 1842

5 Food additives

Food additives when used shall comply with CODEX STAN 192

6 Contaminants

6.1 Heavy metals

Processed artichokes product shall comply with those maximum heavy metal limits given in Table 2 when tested in accordance with test methods specified therein..

Table 2 – Limits for heavy metal contaminants for Processed artichokes

Contaminant	Maximum limit mg/kg	Test method
Tin (Sn)	250	ISO 2447
Lead (Pb)	0.1	ISO 8288
Cadmium (Cd)	0.1	AOAC 999.10

6.2 Pesticide residues

Processed artichokes product shall comply with the pesticide residue limits specified by the Codex Alimentarius Commission for this product.

7 Hygiene

7.1 Processed artichokes product shall be produced and handled under hygienic conditions in accordance with EAS 39 and shall comply with microbiological limits given in Table 3 when tested in accordance with the methods specified therein.

Table 3 – Microbiological limits for processed artichoke

S/No	Microorganism	Maximum limit	Test method
i.	Total plate count, cfu/g, max.	50	ISO 4833-2
ii.	<i>Escherichia coli</i> , cfu/g, max.	Absent	ISO 16649-2
v.	Yeasts and moulds, cfu per g, max.	30	ISO 21527-1
vi.	<i>Clostridium botulinum</i> , cfu/g, max.	Absent	ISO/TS 17919

8 Packaging

Processed artichokes product shall be produced and packaged in food grade **hermetically sealed containers**

10 Labelling

10.1 The containers shall be labelled in compliance with the requirements of ZNS 61. Particularly, the following information shall be legibly and indelibly labelled on the container

- name of the product;
- brand name if any;
- net weight in SI units;
- packing medium type;

- e) name and physical address of manufacturer/importer/exporter/packer;
- f) batch number;
- g) date of manufacture and expiry of the product;
- h) instructions for storage product;
- i) list of ingredients.

10.2 Nutritional and health claims shall be made in accordance to EAS 803 and EAS 805.

11 Sampling

Sampling shall be done in accordance with CXS 233.