DRAFT TANZANIA STANDARD

Cashew butter – Specification

TANZANIA BUREAU OF STANDARDS

0 Foreword

Cashew butter is a cohesive, comminuted spread product prepared by grinding sound roasted/unroasted mature cashew kernels.

This Tanzania standard lays down specifications aiming at ensuring the safety and quality of cashew butter produced or traded in the country for human consumption.

In reporting the results of a test or analysis made in accordance with this Tanzania Standard, if the final value observed or calculated is to be rounded off, it shall be done in accordance with TZS 4.

1 Scope

This Tanzania Standard prescribes requirements, methods of sampling and testing for cashew butter derived from kernels of cashew tree *(Anacardium occidentale, L)* intended for human consumption.

2 Normative Reference

The following documents are 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;

CODEX STAN 192, *General standards for food additives*

TZS 4, *Rounding off numerical values*

TZS 54, *Animal and Vegetable fats and oils – Sampling*

TZS 101, *refined sugar-specification*

TZS 109, *Food processing units – Code of hygiene — General*

TZS 122, Microbiology of food and feeding Stuffs – Horizontal method for the detection of Salmonella spp

TZS 125, *Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) - Part 2: Technique using rabbit plasma fibrinogen agar medium*

TZS 131, *Microbiology – General guidance for enumeration of yeast and moulds – Colony count technique at 25 0C*TZS 132, *edible salt – Specification*

TZS 538, *Packaging and labelling of foods*

TZS 731, *Microbiology of food and feeding Stuffs-Horizontal method for the detection and enumeration of presumptive Escherichia Coli – Most Probable Number Technique*

TZS 739, Cashew kernels – Specification

TZS 799, *Foodstuffs – Determination of aflatoxin B1, and the total content of aflatoxins B1, B2, G1 and G2 in cereals, nuts and derived products – High-performance liquid chromatographic method*

TZS 831*, brown sugar – specification*

TZS 851, *Honey-Specification*

TZS 1322, *Oils and fats Sampling and test methods – Purity tests*

TZS 1326, Animal *and vegetable fats and oils – Determination of moisture and volatile matter*

TZS 1331, *Animal and vegetable fats and oils – Determination of acid value and acidity*

TZS 2620, *Animal and vegetable fats and oils - Determination of ash*

TZS 2623, *Butter, edible oil emulsions and spreadable fats –Determination of fat content (Reference method)*
ISO 1738**,** *Butter — Determination of salt content*

3.Terms and definitions

For the purpose of this document, the following terms and definitions shall apply:

3.1 cashew butter
Cohesive, comminuted spread product prepared by grinding sound roasted/unroasted mature cashew kernels

3.2 stabilized cashew butter
cashew butter to which any suitable food ingredient(s) has been added to reduce oil-meal separation

4.Requirements

4.1 General requirements

4.1.1 Cashew butter shall:
a) be free from testa and shells;
b) be free from any foreign matter;
c) have colour characteristic of the type of cashew kernels used;
d) have an aroma and flavour typical of the type of cashew kernels used;
e) spread easily;
f) have no noticeable oil separation in the stabilized type.

4.1.2 Ingredients

4.1.2.1 Essential ingredients
The cashew butter shall comprise at least 90 % of cashew kernels complying with TZS 739

4.1.2.2 Optional ingredients

In addition to the essential ingredients, optional ingredients may be added but not limited to the following at levels of good manufacturing practice unless otherwise specified:

a) edible salt (sodium chloride) complying with TZS 132
b) sugars complying with TZS 831 for brown sugar and TZS 101 for refined sugar
c) honey complying with TZS 851
d) Edible fats and oils complying relevant Tanzania standard

4.2 Specific requirements

Cashew butter shall comply with requirements given in Table 1 when tested in accordance with the methods specified therein;

Table 1-Specific requirements for cashew butter

S/n	Characteristic	Requirement	Test method
i	Moisture content, %, m/m, max.	3.0	TZS 1326
ii	Acid value, mg KOH/g, max	4.0	TZS 1331
iii	Total ash (on dry basis) %, max	3.0	TZS 2620
iv	Fat (on dry basis) %, m/m	40-55	TZS 2623
v	Salt[a] as sodium chloride %, m/m, max.	2.0	Annex A
[a] only applies to salted cashew butter			

5.Food additives

Use of food additives shall be in accordance with Codex Stan 192.

6 Contaminants

6.1 Heavy Metal contaminants
Cashew butter shall comply with those maximum heavy metal contaminants stipulated in Codex Stan 193

6.2 Pesticide residues
Cashew butter shall comply with those maximum residue limits established by the Codex Alimentarius Commission for this commodity.

6.3 Total Aflatoxin shall not exceed 10 µg/kg while aflatoxin B1 shall not exceed 5 µg/kg when tested in accordance with TZS 799.

7 Hygiene

7.1 Cashew butter shall be produced, processed, handled and stored in accordance with TZS 109.

7.2 Cashew butter shall comply with the microbiological limits given in Table 2 when tested in accordance with the methods specified therein;

Table 2 — Microbiological limits for cashew butter

S/N	Microorganism	Maximum limit	Test method
i	Salmonella per 25 g	absent	TZS 122
ii	E. coli MPN/g	absent	TZS 731
iii	Staphylococcus aureus	absent	TZS 125
iv	Yeast and mould cfu/g, max	10^3	TZS 131

8 Sampling and Testing

8.1 Sampling
Sampling shall be carried out in accordance with TZS 54.

8.2 Testing
8.2.1 Testing shall be in accordance with TZS 1322 and as provided in the respective tables and Annexes of this Tanzania Standard.

9 Packing, marking and labelling

9.1 Packing

Cashew butter shall be packaged in containers made from suitable food grade material.

9.2 Marking and labelling

Cashew butter containers shall be marked and labelled in accordance with TZS 538. In addition, each container shall be legibly and indelibly marked with the following information:

a) Name of the product as;
   i. Roasted cashew butter' (if no stabilizer has been added);
   ii. Roasted cashew butter stabilized' (if stabilizer/emulsifier has been added);
   iii. Unroasted cashew butter' (if no stabilizer has been added); and
   iv. Unroasted cashew butter stabilized' (if stabilizer/emulsifier has been added).

b) Trade name or brand, if any;
c) Name, address of the manufacturer and/or packer;
d) Batch or code number;
e) Date of manufacturer;
f) Expiry date;
g) Net weight;
a) Country of origin;
b) Storage conditions
c) List of ingredients in descending order, including the specific name of additives
d) Language on the label shall be in Swahili and/or English. A second language may be used depending on the designated market.
e) Nutritional Information (optional)

f) Disposal of used packages

ANNEX A

(normative)

Determination of salt (AOAC official method)

A.1 Reagents

A.1.1 Acetone

A.1.2 10 % calcium acetate solution

A.1.3 HNO3

A.1.4 0.1 N AgNO3

A.1.5 Ferric indicator

A.1.6 0.1 N NH4SCN3

A.2 Procedure

A.2.1 Weigh 2 g of a thoroughly mixed sample into a platinum or silica dish.

A.2.2 Disperse the sample with 10 mL of acetone.

A.2.3 Remove acetone, at room temperature, with an air current.

A.2.4 Add, and thoroughly mix, 10 mL of 10 % calcium acetate solution.

A.2.5 Carefully dry on a steam bath.

A.2.6 Ash in a muffle furnace at 500 °C (1 022 °F). Complete ashing not necessary.

A.2.7 Place the ash in a beaker and dissolve the ash in 25 mL HNO3 (1+3).

A.2.8 Add at least 2 mL - 4 mL of 0.1 N AgNO3 that is just enough to precipitate all chloride present.

A.2.9 Add at least 5 mL of 0.1 N AgNO3 in excess, to A.2.8.

A.2.10 Heat to boil, cool, then add 5 mL ferric indicator.

A.2.11 Titrate excess Ag with 0.1 N NH4SCN (which has been standardized to equalize normalities) to a permanent light brown end point.

A.2.12 Subtract the amount of NH4SCN used in A.2.11 from the total AgNO3 used in A.2.8 and A.2.9. The resulting difference is the ml of 0.1 N AgNO3 used in the calculation of salt.

A.3 Calculation

The salt content shall be calculated as follows:

$$\%\ \mathrm{NaCl} = \frac{(\mathrm{mL\ of\ 0.1\ N\ AgNO_3})(0.05845)(100)}{\mathrm{gram\ of\ sample}}$$