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Ground cassava leaves mix— Specification



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Foreword

Rwanda Standards are prepared by Technical Committees and approved by Rwanda Standards Board (RSB) Board of Directors in accordance with the procedures of RSB, in compliance with Annex 3 of the WTO/TBT agreement on the preparation, adoption and application of standards.

The main task of technical committees is to prepare national standards. Final Draft Rwanda Standards adopted by Technical committees are ratified by members of RSB Board of Directors for publication and gazettment as Rwanda Standards.

PDS XXX was prepared by Technical Committee RSB/TC 17, *Prepared and Pre-packaged foods*.

Committee membership

The following organizations were represented on the Technical Committee on *Prepared and Pre-packaged foods* (RSB/TC 17) in the preparation of this standard.

SHEKINA ENTREPRISE

SOSOMA

URWIBUTSO ENTERPRISE

UR-CAVM

ADECOR

Rwanda Standards Board (RSB) – Secretariat

Ground cassava leaves mix— Specification

1 Scope

This Draft Standard specifies requirements and methods of sampling and test for ground cassava leaves mix, intended for human consumption.

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.

CODEX STAN 192, *Codex General Standard for food additives*

RS EAS 38, *General standard for the labelling of pre-packaged foods*

RS EAS 744, *Cassava and cassava products — Determination of total cyanogens — Enzymatic assay method*

RS EAS 780, *Fresh cassava leaves-Specification*

RS EAS 82, *Determination of Acid insoluble ash*

ISO 24333, *Cereals and cereal products -- Sampling*

RS ISO 16050, *Foodstuffs — Determination of aflatoxins B₁ and total content of aflatoxins B₁, B₂, G₁ and G₂ in cereals, nuts, and derived products — High performance liquid chromatographic method*

RS ISO 16649-1, *Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli -- Part 1: Colony-count technique at 44 degrees C using membranes and 5-bromo-4-chloro-3-indolyl beta-D-glucuronide*

RS 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*

RS ISO 21527-1-2, *Methods for the microbiological examination of foods — Part 8: Enumeration of yeast and moulds in foods*

RS 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*

RS ISO 2171, *Cereals, pulses and by-products -- Determination of ash yield by incineration*

RS ISO 3094, *Fruit and vegetable products — Determination of copper*

RS ISO 4833 *Methods for the microbiological examination of foods — Part 2: General guidance for the enumeration of micro-organisms — Colony count technique at 30 °C*

RS ISO 5498, *Agricultural food products — Determination of crude fibre content — General method*

RS ISO 6579, *Microbiology of food and animal feeding stuffs -- Horizontal method for the detection of Salmonella spp.*

RS ISO 6633, *Fruit and vegetable products — Determination of lead content — Flameless atomic absorption spectrometric method*

RS ISO 6634, *Fruit and vegetable products — Determination of arsenic content — Silver diethyldithiocarbamate spectrophotometric method*

RS ISO 6637, *Fruit and vegetable products — Determination of mercury content — Flameless atomic absorption method*

RS ISO 712, *Cereals and cereal products — Determination of moisture content — Routine reference method*

RS ISO 7251, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of presumptive Escherichia coli — Most probable number technique*

RS CAC/RCP 1, *Code of practice-General principles for food hygiene*

3 Terms and definitions

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

3.1

Ground cassava leaves mix

is a precooked product obtained from dried pounded fresh cassava leaves where other vegetables and condiments have been added.

3.2

Fresh cassava leaves

Edible cassava leaves from variety of manihot glaziovii and Manihot esculenta

3.3

Condiments

Is a spice/ sauce or preparation from Animal and plant products that is added to food to impart, to enhance its flavour or in some culture to complement the food.

4 Requirements

4.1 Ingredients

4.1.1 Fresh cassava leaves from variety of *manihot glaziovii* and *Manihot esculenta* complying with appropriate requirements of RS EAS 780

4.1.2 condiments of animal and plant origin complying with relevant standards shall be used **4.1.3** Ground nuts used shall comply with the requirements provided in RS 285: 2015 Hygienic Practices for handling, transportation and storage for ground nuts.

4.1.4 water used shall comply with RS EAS 12 xxx

4.2 Optional ingredients

4.2.1 Vegetables used (leeks, spinach, garlic) shall be prepared from fresh, clean, sound edible parts of the plant conforming to the characteristics of the species.

4.2.2 Salt shall comply with RS EAS 35.

4.2.3 Edible fats and oils used shall comply with the requirements provided in CODEX STAN 210-2015 Vegetable oils.

4.2.4 oil seeds, pulses and legume flours may be used shall be produced from the grains complying with Codex Stan 200 (do we use this ingredient. I think we have an EAS standard on peanut flour)

4.3 General requirements

ground cassava leaves mix shall be;

- a) free from impurities of animal and plant origin, including dead insects
- b) free from abnormal flavours, foreign smell and odours
- c) safe and suitable for human consumption and
- d) practically free of any visible foreign and extraneous matter;

4.4 Specific quality requirements

4.4.1 Ground cassava leaves mix may be wet or dry

4.5 ground cassava leaves mix

shall comply with the requirements in table 1

Table 1 — specific quality requirements for ground cassava leaves mix

S/N	Characteristics	Requirement	Method of test
1	Crude ash content, % by mass on dry matter basis, max.	8.0	RS ISO 2171
2	Moisture content, % by mass, max.	11	RS ISO 712
3	Crude fibre content, % by mass on a dry matter basis, max.	39.0	RS ISO 5498
	Dry matter content of wet ground cassava leaves % min.		
4	Acid insoluble ash, % by mass, max.	0.35	RS EAS 82
5	Total hydrocyanic acid content, mg/kg, max	5	RS EAS 744
6	Acid value, mg KOH/g,max.	2	
7	Particle size	Not less than 90 % shall pass through 0.60 mm size aperture sieve for fine ground cassava leaves Not less than 90 % shall pass through 1.20 mm size aperture sieve for coarse ground cassava	

5 Contaminants

5.1 Heavy metals

The product shall be free from heavy metals in amounts set in Table 2.

Table 2 — Limits for heavy metal contaminants

S/N	Heavy metals	Maximum Limits, mg/kg	Method of Test
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1	cadmium	2.0	RS ISO 3094
2	Lead	0.1	RS ISO 6633
3	Arsenic	0.1	RS ISO 6634
4	Mercury	0.01	RS ISO 6637

5.2 Pesticide and veterinary drugs residues

5.2.1 ground cassava leaves mix shall conform to those maximum residue limits established by the Codex Alimentarius Commission for the ingredients used in the preparation of this product,

5.2.2 ground cassava leaves mix shall comply with those maximum limits for veterinary drugs.

5.3 Mycotoxins

ground cassava leaves mix when tested in accordance with RS ISO 16050, shall conform to the following maximum limits of aflatoxins:

- a) total aflatoxins content – 10 µg/kg;
- b) aflatoxin B1 content – 5 µg/kg,

6 Microbiological requirement

Ground cassava leaves mix shall conform to microbiological limits in Table 3

Table 3 — Microbiological limits

Microorganisms	Maximum limit	Method of test
<i>Total viable count, CFU/g, max.</i>	10 ⁴	RS SO 4833
<i>Escherichia. coli, per g</i>	Shall be absent	RS ISO 16649-1
<i>Salmonella in 25 g</i>	Shall be absent	RS ISO 6579
<i>Yeast and mould, CFU/g, max.</i>	10 ²	RS ISO 21527-1

7 Hygiene

ground cassava leaves mix shall be manufactured in premises complying with the hygienic requirements stipulated in RS CAC/RCP1

8 Packaging

8.1 ground cassava leaves mix shall be packaged in containers, which will safeguards quality and safety of the product.

9 Labelling

In addition to the requirements of RS EAS 38, the labelling shall include the following:

- a) The name of the product as ground cassava leaves mix”.
- b) List of ingredients,
- c) Net contents
- d) Name, location and address of the manufacturer shall be declared.
- e) Country of origin shall be declared.
- f) Lot or batch number.
- g) Manufacture date
- h) Expiry date
- i) Storage instructions
- j) Instruction for use
- k) If meat or fish has been used as ingredient shall be declared on the label “Allergens shall be declared on the label
- l) Method of sampling

10 Sampling

Shall be done in accordance with RS ISO 24333

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