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ICS 67.230

DRAFT EAST AFRICAN STANDARD

Food grade cassava starch — Specification

EAST AFRICAN COMMUNITY

Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in East Africa. It is envisaged that through harmonized standardization, trade barriers which are encountered when goods and services are exchanged within the Community will be removed.

In order to meet the above objectives, the EAC Partner States have enacted an East African Standardization, Quality Assurance, Metrology and Test Act, 2006 (EAC SQMT Act, 2006) to make provisions for ensuring standardization, quality assurance, metrology and testing of products produced or originating in a third country and traded in the Community in order to facilitate industrial development and trade as well as helping to protect the health and safety of society and the environment in the Community.

East African Standards are formulated in accordance with the procedures established by the East African Standards Committee. The East African Standards Committee is established under the provisions of Article 4 of the EAC SQMT Act, 2006. The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the procedures of the Community.

Article 15(1) of the EAC SQMT Act, 2006 provides that "Within six months of the declaration of an East African Standard, the Partner States shall adopt, without deviation from the approved text of the standard, the East African Standard as a national standard and withdraw any existing national standard with similar scope and purpose".

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

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Food grade cassava starch — Specification

1 Scope

This draft East African Standard specifies the requirements, sampling and test methods for food grade cassava starch.

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.

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

EAS 103, *General standard for food additives*

EAS 738 *Fresh sweet cassava – Specification*

EAS 739 *Dried cassava chips – Specification*

ISO 1666, *Starch – Determination of moisture content – Oven-drying method*

ISO 5809, *Starches and derived products – Determination of sulphated ash*

ISO 5810, *Starches and derived products – Determination of chloride content – Potentiometric method*

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

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

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 6579-1- Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella — Part 1: Detection of *Salmonella spp.*

ISO 4833-1 Microbiology of the food chain — Horizontal method for the enumeration of microorganisms — Part 1: Colony count at 30 °C by the pour plate technique

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

CODEX STAN 193- Codex general standard for contaminants and toxins in foods

EAS 740, *Cassava flour – Specification*

EAS 744 Cassava and cassava products – Determination of total cyanogens – Enzymatic assays method

AOAC 943.02, PH of flour. Potentiometric method

3 Terms and definitions

For the purpose of this standard, the following term and definition shall apply.

3.1
food grade cassava starch
white granular glucose polymer obtained by wet extraction process from mature cassava (*Manihot esculenta* Crantz) storage root or cassava chips or cassava flour

3.2
foreign matter
inorganic matter such as sand, glass, metal, stones, clay and mud and organic matter such as chaff, straw, weed seeds and insects or insects fragments, rodent hairs

4 Requirements

4.1 General requirements

4.4.1 Food grade cassava starch shall be processed from fresh matured sweet cassava roots or bitter cassava roots conforming to EAS 738, dried cassava chips conforming to EAS 739, cassava grits or cassava flour conforming to EAS 740.

4.4.2 Food grade cassava starch shall

a) have characteristic colour, of the raw material used

b) be tasteless,

c)be odourless.

d)be free from foreign matter

e) be insoluble in cold water

f) be insoluble in 96 % ethanol.

4.4.3 Not less than 95 % of mass of food grade cassava starch shall pass through a sieve of 140 µm mesh screen.

4.2 Specific requirements

4.2.1 Food grade cassava starch shall give a blue-black colouration when tested with iodine.

4.2.2 Food grade cassava starch shall conform to the compositional quality requirements shown in Table 1.

Table 1 — Compositional Quality requirements

Analytical characteristic	Requirement	Method of test
Total acidity, %, by mass, max.	1.0	AOAC 942.15
pH	5 - 7	AOAC 943.02
Cyanide content, mg/kg, max.	10.0	EAS 744
Starch content, %, by mass, min.	60	ISO 10520
Moisture, % by mass, max	12.0	ISO 1666
Fibre, % by mass on dry weight basis, max.	0.2	ISO 5498

Sulphated ash, % by mass, max.	0.6	ISO 5809
Chloride, %, by mass, max.	0.64	ISO 5810

5 Food additives

Food-grade cassava starch may contain a maximum of 0.2 % ascorbic acid as colour improver and other additives in accordance with EAS 103.

6 Contaminants

6.1 Pesticide residues

Food grade cassava starch shall conform to maximum residue limits for pesticide residues established by the Codex Alimentarius Commission.

6.2 Other contaminants

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

7 Hygiene

Food grade cassava starch shall be prepared and handled in a hygienic manner in accordance with EAS 39 and shall conform to microbiological limits specified in Table 2.

Table 2 — Microbiological limits for food grade cassava starch

Micro-organisms	Maximum limit	Method of Test
Total aerobic count, CFU/g, max.	10^4	ISO*4833-1*
Escherichia coli, MPN/g	Absent	ISO 7251
Salmonella	Absent	ISO 6579
Yeast and mould, CFU/g, max.	10^3	ISO 21527 -1

8 Packaging

Food grade starch shall be packaged in food grade materials, which is hermetically sealed to safeguard the hygienic, nutritional, and organoleptic qualities of the product. The packaging materials shall comply with the environmental legislation of the destination country,

9 Labelling

In addition to the requirements of EAS 38; the following labeling requirements shall apply and shall be legibly and indelibly marked

a) the common name of the food to be declared on the label shall be 'Food grade cassava starch';

b) the net contents by weight in metric (`Systeme International') units;

c) the name and physical ~~and~~ address of the manufacturer / distributor;

d) the country of origin;

e) lot identification;

f) date of manufacture and best before date;

g) the statement `Human Food' shall appear on the package;

h) storage conditions as ‘store in a cool dry place away from contaminants’; and

i) instructions on disposal of used package.

10 Method of sampling and analysis

Sampling shall be done in accordance with EAS 900

