KENYA STANDARD

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Food grade potato starch — Specification

COMMITTEE DRAFT

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TECHNICAL COMMITTEE REPRESENTATION

The following organizations were represented on the Technical Committee:

University of Nairobi-Department of Food Science, Nutrition and Technology
Agriculture and Food Authority- Food Cop directorate
Kenya Agricultural & Livestock Research Organization
Kenya Industrial Research & Development Institute
National Potato Council of Kenya
Food Science and Technology platform of Kenya
International Potato Council
Kenya Bureau of Standards — Secretariat

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In order to keep abreast of progress in industry, Kenya Standards shall be regularly reviewed. Suggestions for improvements to published standards, addressed to the Managing Director, Kenya Bureau of Standards, are welcome.

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Food grade potato starch — Specification

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Foreword

This Kenya Standard has been developed by the Tubers and Tuber Products Technical Committee under the guidance of the Standards Projects Committee and it is in accordance with the procedures of the Kenya Bureau of Standards.

The development of this standard is in response to the need to accommodate the emerging quality, innovation, technological and environmental issues in the sector. The implementation of the standard is aimed at creating harmony, quality, uniformity and fair trade in the sector, thereby creating value for the stakeholders.

In the development of this standard it was envisaged that the current paradigm of sustainable development shall be ensured in the context of social, economic and environmental concerns. The standard thus intends to safeguard the interests of the stakeholders in the entire value chain, guarantee product quality and enhanced safety of the consumers.

In the development of this standard, reference was made to the following documents:
Recommended International Code of Practice General Principles of Food Hygiene.
EAS 742- Food grade cassava starch — Specification

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Food grade potato starch — Specification

1 Scope

This draft Kenyan Standard specifies the requirements, methods of sampling and test for food grade potato 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 39*, Hygiene in the food and drink manufacturing industry — Code of practice*
EAS 103, *General standard for food additives*
EAS 748 *Fresh ware potato — Specification*
EAS 900 Cereals and pulses -Sampling
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 6888-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase- positive staphylococci (Staphylococcus aureus and other species) — Part 1: Technique using Baird-Parker agar medium*
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 5498 Agricultural food products — Determination of crude fibre content — General method
CODEX STAN 193, Codex general standard for contaminants and toxins in food and feed AOAC 943.02, PH of flour. Potentiometric method

AOAC 942.15, Titratable Acidity Test Method

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3 Terms and definitions

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

3.1
food grade potato starch
white granular glucose polymer obtained by wet extraction process from mature potato (*Solanum tuberosum .)* tubers

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

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4.1 General requirements

4.1.1 Food grade potato starch shall be processed from fresh ware potato tubers complying with EAS 748

4.1.2 Food grade potato starch shall be:

a) characteristic colour of the raw material used .
b) tasteless.
c) odourless.
d)free from foreign matter.
e) be insoluble in cold water and alcohol

4.2 Specific quality requirements

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

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

4.2.3 Food grade potato starch shall conform to the compositional quality requirements shown in Table 1.

Table 1: Specific requirements for food grade potato starch

Parameter	**Requirement**	**Method of test**
Total acidity, %, by mass, max	1.0	AOAC 942.15
pH	5 - 7	AOAC 943.02
Starch content, %, by mass, min.	60,	ISO 10520
Moisture, % by mass, max	12.0	ISO 1666
Sulphated ash, % by mass, max.	0.6	ISO 5809
Chloride, %, by mass, max.	0.6	ISO 5810
Fibre, % by mass on dry weight basis, Max	0.2	ISO 5498

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5 Food additives

The Food grade potato starch shall contain only permitted additives at the level of good manufacturing practice as specified in accordance with EAS 103.

6 Contaminants

6.1 Pesticide residues

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

6.2 Other contaminants

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

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7 Hygiene

Food grade potato 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 potato starch

Micro-organisms	Maximum limit	Method of Test
Staphyllococcus aureas, CFU/g	<10	ISO 6888-1
Escherichia coli, cfu/g	Absent	ISO 7251
Salmonella , per 25g	Absent	ISO 6579
Yeast and mould, CFU/g, max.	10^3	ISO 21527 -1

8 Packaging

8.1 Food grade potato starch shall be packed in food grade packaging materials which will safeguard the hygienic, nutritional, and organoleptic qualities of the products.

8.2 Each package shall be securely closed and sealed.

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9 Labelling

In addition to the requirements of EAS 38; the following labelling 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 potato starch';

b) the net contents by weight

c) the starch content percentage (%)

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

d) the country of origin;

e) lot identification;

f) date of manufacture and expiry 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

Sampling shall be done in accordance with EAS 900

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