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Food seasoning mixtures — Specification

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TECHNICAL COMMITTEE REPRESENTATION

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Government Chemist's Department

Unilever (K) Ltd.

National Public Health Laboratory Services

Nestle (K) Ltd.

Deepa Industries Ltd.

Kenya Technical University Department of Food and Beverage Production

Consumer Information Network

Trufoods Ltd.

Jomu Spice Firm

Kenya Industrial Research and Development Institute (KIRDI)

Kenya Bureau of Standards — Secretariat

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Kenya Bureau of Standards, 2016

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Foreword

This Kenya Standard has been prepared by the Spices, Condiments and Culinary Herbs Technical Committee under the supervision of the Standards Projects Committee, and it is in accordance with the procedures of the Kenya Bureau of Standards.

This standard has been revised to reflect the current International Food Additives Levels used in these types of mixes.

This revision also reviews food additives and heavy metal contaminants in line with the relevant Codex standards i.e. Codex Stan 192,—Codex General Standard for Food additives and Codex Stan 193- Codex General Standard for Contaminants and Toxins in Foods and Feeds respectively.

Food seasoning mixtures are blends of spices, herbs and other food additives used to enhance and vary the organoleptic (flavour, colour, aroma) properties of foods.

They are selected to improve or bring out some properties of foods which may otherwise have a monotonous flavour. The standard specifies microbiological, chemical and food additive limits to guide the manufacturer and protect the consumer.

This edition has reviewed microbiological and compositional requirements to reflect developmental changes in the spice industry. It also incorporates an environmental clause and a packaging clause that ensures the safety and integrity of the product.

During the preparation of this standard, reference was made to the following documents:

Codex Stan 192 - Codex General Standard for Food additives

Codex Stan 193 Codex General Standards for Contaminants and toxins in foods and feeds

Alinorm 97/12A, Report of the 29th Session of the Codex Committee on Food Additives and Contaminants.

Alinorm 99/12, Appendix iv) and v): Report of the 30th Session of the Committee on Food Additives and Contaminants.

European Spices Association Specifications Quality Minima for Herbs and Spices.

Guidelines for the Microbiological Examination of Ready to eat Foods — Food Standards, Australia and New Zealand.

Microbiological Specifications for Savoury Dry Products pp 7 — 8, Dry Vegetables not Blanched or Decontaminated Products.

Microbiological Specifications for Savoury Dry Products p 15 ingredient group 8b, Decontaminated Spices, herbs and vegetables.

KS 660, Guide to safe use of food additives.

Acknowledgement is hereby made for the assistance derived from these sources.

1 Scope

- 1.1 This Kenya Standard specifies the requirements for food seasoning mixtures.
- **1.2** This standard does not cover dehydrated soups, broths, masalas and/or spices and herb mixtures.

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.

- KS 38, Specification for plantation mill white sugar
- EAS 38, Labelling of pre-packaged foods
- KS 169, Specification for wheat flour
- ISO 7954-1, Microbiology of food and animal feeding stuffs General guidance for enumeration of yeasts and moulds Part 8: Colony count technique at 25 degrees C
- ISO 4832-3, Microbiology of God and animal feeding stuffs Horizontal method for the enumeration of coliforms Part 3: Colony-count technique
- ISO 6579-6, Microbiology of food and animal feeding stuffs Part 6: Horizontal method for the detection of Salmonella spp.
- ISO 6888-1, Microbiology of food and animal feeding stuffs ¾ Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) ¾ Part 1: Technique using Baird-Parker agar medium
- ISO 7521 ,Microbiology of food and animal feeding stuffs -- Horizontal method for the detection and enumeration of presumptive Escherichia coli -- Most probable number technique
- ISO 793, Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of Clostridium perfrigens -- Colony-count technique
- KS ISO 6633, Fruits ,Vegetables and derived products- Determination of lead content- Flameless atomic abbsorption Spectrometric Method
- KS ISO 6634, Fruits, Vegetables and derived products Determination of Arsenic Content Silver diethlydithiocarbamate spectrophotometric Method
- KS ISO 6637, Fruits, Vegetables and derived products Determination of Mercury content- Flameless atomic absorption method
- KS ISO927, Spices and Condiments—Determination of extraneous matter and foreign matter content
- KS ISO928, Spices and condiments Determination of total ash
- KS ISO 939, Spices and condiments Determination of Moisture content Entrainment method
- KS ISO 930, Spices and condiments---Determination of acid insoluble ash
- EAS 35, Edible salt Specification

EAS 321, Specification for edible fats and oils

KS 340, Specification for edible maize starch

KS 660, Guide to safe use of food additives

KS 1168, Specification for beef extract

EAS 39---Code of hygienic practice for food and drink manufacturing companies

KS EAS 5, White refined sugar – Specification

KS EAS 749, Brown sugar - Specification

KS ISO 948 - Spices and condiments -- Sampling

KS ISO 16050, Foodstuffs — Determination of aflatoxin B_{1B4} , and the total contents of Aflatoxins B_1 , B_2 , $G1_1$ and G_2 in cereals, nuts and derived products — High performance liquid chromatographic method

3 Definitions

For the purposes of this standard the following definitions shall apply:

3.1

food seasoning mixture

shall be a product presented in powder form or moulded into cubes or other forms whose aim is to enhance colour, taste, flavour and / or nickness of a food preparation intended for human consumption

3.2

meat extract

shall be the concentrated broth prepared through controlled evaporation of an aqueous solution of lean meat

3.3

GMP

shall mean "Good Manufacturing Practice"

4 Composition and quality requirements

4.1 Permitted ingredients

All ingredients used in the preparation of food seasoning mixtures shall be clean, of food grade quality and shall comply with Kenya Standards or International Standards where a Kenya Standard does not exist.

- **4.1.1** Herbs and spices.
- **4.1.2** Edible starches complying with the requirements of KS 340.
- **4.1.3** Meat extracts complying with the requirements of KS 1168.
- 4.1.4 Yeast extract.
- 4.1.5 Chicken extract.
- **4.1.6** Edible fat complying with the requirements of EAS 291-339 Edible salt complying with the requirements of EAS 35:2000, Edible salt Specification KS 229.

- **4.1.7** Wheat flour complying with the requirements of KS 169. Sugar complying with EAS 5:2009,-Refined white sugar Specification and EAS 749:2010, Brown sugars Specification
- 4.1.8 KS 1702.
- **4.1.9** Lactose.
- **4.1.10** Permitted food additives (as elaborated in). EAS 103:1999, Schedule for permitted food additives/Codex Stan 192

4.2 Chemical compositional requirements

When tested according to KS ISO 927-930(test methods for spices and condiments), the powdered and moulded seasoning mixtures shall no exceed the limits prescribed in Table 1.

SL No. Characteristic **Maximum limit** i) Moisture content, % m/m 8.0 ii) Total ash, % (m/m dry weight basis) 60 a a) Compacted form b) Non-compacted form 27 iii) Acid insoluble ash, % m/m 3.0 a The ash content is high due to the fact that salt is a major ingredient.

Table **⅓** — Chemical limits for seasoning mixtures

4.3 Other compositional qualities

The food seasoning mixtures shall be free from the following characteristics:

- 4.3.1 Rancidity.
- **4.3.2** Insect infestations.
- **4.3.3** Other objectionable matter which may represent a hazard to health.

5 Food additives

The food additives in the food seasoning mixtures shall comply with Codex Stan 192 - Codex General Standard for Food Additives and Food, Drugs and Chemical Substances Act, Cap. 254 of the Laws of Kenya and KS 660.

6 Heavy metal contaminant limits

Food seasoning mixtures shall comply with the heavy metal contaminant limits in Table 3 and in Codex Stan 193:Codex general standards for contaminants and toxins in foods.

SL No.	Metal contaminant	Maximum limits, mg/kg (ppm)	Test Method
i)	Lead	2.0	ISO 6633:1984
ii)	Arsenic	0.5	ISO 6634:1982
iii)	Mercury	0.1	ISO 6637 :1984

Table 3 — Heavy metal contaminant limits

7 Irradiation limits

When the food seasoning mixture or ingredients used have been exposed to irradiation, the level shall not exceed 10 kilo Grays as provided for, in the Radiation Protection Act, Cap. 243 of the Laws of Kenya.

8 Hygiene

The food seasoning mixtures covered by this standard shall be prepared in accordance with EAS 39 Code of hygienic practice in Food manufacturing companies, the Public Health Act, Cap. 242 of the Laws of Kenya and the Food, Drugs and Chemical Substances Act, Cap. 254 of the Laws of Kenya.

9 Environmental management

- 9.1 Food seasoning mixtures shall be processed in an environment that complies to EMCA No 8 1999.
- **9.2** Disposal of condemned food seasoning mixture shall comply with EMCA No 8 of 1999 on disposal of solid and liquid wastes.

10 Microbiology

10.1 When tested according to ISO test Methods Listed on Table 4, the food seasoning mixtures shall comply with the microbiological limits in Table 4.

SL No.	Type of micro-organism	Maximum counts cfu/g	Test Method
i)	Yeasts and moulds	10 ⁴	ISO 7954:1987
ii)	Coli forms	10 ²	ISO 4832:2006
iii)	E. coli	Absent	ISO 7521:2006
iv)	Staphylococcus aureaus	Absent	ISO 6888-1:1999
v)	Clostridium perfrigens	Nil	ISO 7937:2004
vi)	Salmonella spp.	Absent/25 g	ISO 6579:2002,

Table 4 Microbiological limits for food seasoning mixtures

10.2 Food seasoning mixtures shall not contain more than 10 ppb total aflatoxin, and 5 ppb for Aflatoxin B_1 when tested according to KS ISO 16050 – Determination of aflatoxin B_1 and the total contents of aflatoxins B_1 , B_2 , G_1 and G_2 in cereals, nuts and derived products — High performance liquid chromatographic method

11 Packaging and labelling

11.1 Packaging

- **11.1.1** Food seasoning mixtures shall be packed in food grade containers that secure the integrity and safety of the product.
- **11.1.2** Fill of the container shall comply with the Weights and Measures Act, Cap. 513 of the Laws of Kenya.

11.2 Labelling

The packages of the food seasoning mixtures shall be legibly and indelibly labelled in accordance with the requirements of EAS 38 and shall also include the following:

i) the common name of the product as "Food Seasoning Mixture" or "Seasoning Mix;

- ii) the form of presentation, either in powdered form or in cubes;
- the word 'Irradiated' in the case of an irradiated ingredient or product. Radiation status (Radura Mark Irradiation Symbol) where irradiation has been used.);
- iv) the name, address and physical location of manufacturer/vendor;
- v) country of origin/manufacture;
- vi) net weight in grams or kilograms;
- ix) instructions for use;
- x) storage instructions.
- xi) date of manufacture;
- xii) expiry date;
- xiv) batch number /code /lot number; and
- xv) instructions for disposal of used package.

12 Sampling

Sampling shall be done according to KS ISO 948 – Spices and condiments — Sampling.