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Blended or mixed nut and oilseed butters — Specification



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Kapa Oil Refineries Ltd.

Bidco Africa Ltd.

Kenya Medical Research Institute (KEMRI)

Kenya Industrial Research and Development Institute (KIRDI)

Government Chemists Department

Agriculture and Food Authority (AFA) — Nuts and Oil Crops Directorate (NOCD)

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Kenya Bureau of Standards, Popo Road, Off Mombasa Road, P.O. Box 54974 - 00200, Nairobi, Kenya



+254 020 6948000, + 254 722202137, + 254 734600471



info@kebs.org



@KEBS_ke



kenya bureau of standards (kebs)

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Foreword

This Kenya Standard was prepared by the Edible fats and oils Technical Committee under the guidance of the Standards Projects Committee, and it is in accordance with the procedures of the Kenya Bureau of Standards

Value addition in the oilseeds and nuts value chain has led to innovations in production of butter from nuts or oilseeds which may include but not limited to macadamia butter, almond butter, hazelnut butter, walnut butter. sesame seed butter, pistachio butter and coconut butter other than the commonly used peanut and cashew nuts. Additionally, these nut and oilseed butters can be blended and/or mixed with other essential or added ingredients to form other butters. This standard was thus developed to cover butters obtained from these nuts or oilseeds and/or their blends and mixes.

This standard addresses the quality and safety requirements necessary to produce a safe product for human consumption

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

KS EAS 60, Peanut butter - Specification

KS EAS 1003, Cashew butter - Specification

Acknowledgement is hereby made for the assistance derived from these sources

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Blended or mixed nut and oilseed butters — Specification

1 Scope

This draft Kenya standard specifies requirements, sampling and test methods for butters obtained by mixing nut and oilseed butters and/or their blends with other ingredients intended for human consumption.

2 Normative references

The following referenced documents 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.

CXG 66, Guidelines for the Use of Flavourings

CXS 192, General Standard for Food Additives

KS EAS 35, Fortified edible salt — Specification

KS EAS 36, Honey — Specification

KS EAS 38, Labelling of prepackaged foods — Specification

KS EAS 39, Hygiene in the food and drink manufacturing industry — Code of Practice

KS EAS 803, Nutrition Labelling — Requirements

KS EAS 804, Claims — General requirements

KS EAS 805, Use of Nutrition and health claims — Requirements

KS EAS 1032, Cocoa butter for food industry —Specification

KS EAS 1033, Chocolate and chocolate products — Specification

KS ISO 662, Animal and Vegetable fats and oils — Determination of moisture and volatile matter content

KS ISO 729, Oilseeds — Determination of acidity of oils

KS ISO 735, Oilseed residues — Determination of ash insoluble in hydrochloric acid

KS ISO 5555, Animal and vegetable fats and oils — Sampling

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

KS ISO 6888-1, Microbiology of the food chain — Horizontal method for the enumeration of coagulase-positive Staphylococci (Staphylococcus aureus and other species) — Part 1: Method using Baird-Parker agar medium

KS ISO 12193, Animal and vegetable fats and oils — Determination of lead by direct graphite furnace atomic absorption spectroscopy

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KS ISO 13547 -2, Copper, lead, zinc and nickel sulfide concentrates — Determination of arsenic Part 2: Acid digestion and by inductively coupled plasma atomic emission and spectrometric method

KS ISO16050, 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

KS ISO16649-2, Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli — Part 2: Colony-count technique at 44 degrees C using 5-bromo-4-chloro-3-indolyl beta-D-glucuronide

S 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

3 Terms and definitions

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

3.1. nut or oilseed butters

cohesive, comminuted food product prepared from clean, sound shelled nuts or oilseeds by grinding roasted/fried mature kernels or oilseeds. This may apply but not limited to: macadamia butter, almond butter, hazelnut butter, walnut butter, sesame seed butter, pistachio butter and coconut butter

3.2. blended nut and oilseed butters

cohesive, comminuted food products prepared by blending two or more nut or oilseed butters.

3..3 mixed nut and oilseed butters

cohesive, comminuted food product prepared by mixing nut or oilseed butters and/or their blends with other added ingredients described in clause 4.1.2

3.4. foreign matter

any undesirable material visible with naked eye in a packaged blended or mixed nut or oilseed butter

3.5 food grade packaging material

packaging material, made of substances which are safe and suitable for the intended use and which will not impart any toxic substance or undesirable odour or flavour to the product.

4 Requirements

4.1 Ingredients

4.1.1 Essential ingredients

- 4.1.1.1 Blended nut and oilseed butters shall comprise at least 90 % of the specific nuts or oilseed blend
- 4.1.1.2 Mixed nut and oilseed butters shall comprise of at least 50% of the named nut or oilseed butters and/or their blends mixed with other optional ingredients
- 4.1.1.3 Nuts or oilseeds used shall comply with the relevant Kenya standards.

4.1.2 Optional/added ingredients

In addition to the essential ingredients, optional/added food grade ingredients may be used. These may include but not limited to:

- a) edible salt (sodium chloride) complying with KS EAS 35;
- b) sugars complying with relevant Kenyan sugar standards;
- c) honey complying with KS EAS 36; and.
- d) edible oils or fats complying with relevant Kenya standards
- e) chocolate and chocolate products conforming to KS EAS 1033
- f) cocoa butter for food industry conforming to KS EAS 1032

4.2 General requirements

Blended or mixed nut and oilseed butter shall:

- a) be free from shells;
- b) be free from any foreign matter; and
- c) have an aroma and flavour typical of roasted/fried nut or oilseed.

4.3 Specific requirements

Blended or mixed nut and oilseed butter shall comply with the specific requirements given in Table 1, when tested in accordance with the test methods specified therein.

Table 1 — Specific requirements for blended or mixed nut and oilseed butter

S/No.	Characteristic	Requirement max.	Test method
,	Moisture and volatile matter content, %	3.0	KS ISO 662
ii)	Acid value, mg KOH/g	4.0	KS ISO 729
iii)	Acid insoluble ash, % m/m	1	KS ISO 735

5 Food additives

Food additives when used in blended or mixed nut and oilseed butters shall comply with CXS 192

6 Flavouring agents

Flavouring agents when used in blended or mixed nut and oilseed butters shall comply with CXG 66.

7 Contaminants

7.1 Aflatoxin

Aflatoxin levels in blended or mixed nut and oilseed butters shall not exceed the limits given in Table 2 when tested in accordance with the test method specified therein.

Table 2 — Aflatoxin limits for blended or mixed nut and oilseed butter

S/No.	Characteristic	Maximum limit	Test method
		μg/kg	
i)	Total aflatoxin	10	KS ISO 16050
ii)	Aflatoxin B1	5	

7.2 Pesticide residues

Blended or mixed nut and oilseed butters shall comply with those maximum residue limits for the commodities from which they are derived from established by the Codex Alimentarius Commission.

7.3 Heavy metal contaminants

Blended or mixed nut and oilseed butters shall comply with the maximum limits of heavy metals as specified in Table 3 when tested in accordance with the test methods therein.

Table 3 Heavy metal contaminants limits in blended or mixed nut and oilseed butters

S/N	Contaminant (mg/kg)	Max. limit	Test method
i)	Lead (Pb)	0.08	ISO 12193
::\	Aragria (An	0.4	100 40547 0
III)	Arsenic (As	0.1	ISO 13547 -2

8 Hygiene

- 8.1 Blended or mixed nut and oilseed butters shall be produced, prepared and handled in accordance with KS EAS 39.
- 8.2 Blended or mixed nut and oilseed butters shall comply with the microbiological requirements given in Table 4 when tested in accordance with the test methods specified therein.

Table 4 — Microbiological requirement for blended or mixed nut and oilseed butters

S/No	Characteristic	Requirement	Test method
i)	Escherichia coli, CFU/g	Absent	KS ISO 16649-2
ii)	Salmonella spp. in 25 g	Absent	KS ISO 6579-1

,	Staphylococcus CFU/g	aureus,	Absent	KS ISO 6888-1
iv)	Yeast and moulds		10 ³	KS ISO 21527-2

9 Packaging

Blended or mixed nut and oilseed butters shall be packaged in food grade packaging material that will safeguard the hygienic, nutritional, technological and organoleptic qualities of the product.

10 Labelling

10.1 In addition to the requirements given in KS EAS 38, the name of the product shall be legibly and indelibly labelled as "Xxx Blended or Mixed Nut or oilseed butter and/or the added ingredient.

11 Nutrition and health claims

Nutrition and health claims shall comply with the requirements given in KS EAS 803, KS EAS 804 and KS EAS 805.

11 Sampling

Sampling shall be done in accordance with KS 1SO 5555.

