DEAS 920: 2017

ICS 67.220.10

DRAFT EAST AFRICAN STANDARD

Tea masala — Specification

EAST AFRICAN COMMUNITY

First Edition 2017

Foreword

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

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. 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 Principles and procedures for development of East African Standards. XXXXXX.

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.

The committee responsible for this document is Technical Committee EASC/TC 006, *Spices culinary herbs and condiments*.

Attention is drawn to the possibility that some of the elements of this document may be subject of patent rights. EAC shall not be held responsible for identifying any or all such patent rights.

Tea masala — Specification

1 Scope

This Draft East African Standard specifies the requirements and methods of sampling and test for tea masala which is used as a flavouring material in the preparation of tea.

2 Normative references

The following documents are 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.

CODEX STAN 193*, General standard for contaminants and toxins in food and feed*

EAS 38*, Labelling of pre-packaged foods — Specification*

EAS 39*, Hygiene in the food and drink industry — Code of practice*

EAS 99*, Spices and condiments — Terminology*

ISO 927*, Spices and condiments — Determination of extraneous matter and foreign matter content*

ISO 928*, Spices and condiments — Determination of total ash*

ISO 930*, Spices and condiments — Determination of acid insoluble ash*

ISO 939*, Spices and condiments — Determination of moisture content Entrainment method*

ISO 948*, Spices and condiments — Sampling*

ISO 1108*, Spices and condiments — Determination of non-volatile ether extract*

ISO 4833-1*, Microbiology of the food chain — Horizontal method for the enumeration of micro-organisms — Part 1: Colony-count at 30 degrees C — Pour plate technique*

ISO 7954*, 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 16050*, Foodstuffs — Determination of aflatoxin B1, and the total content of aflatoxins B1, B2, G1 and G2 in cereals, nuts and derived products*

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 6579*, Microbiology of food and animal feeding stuffs — Part 6: Horizontal method for the detection of Salmonella spp.*

ISO 6571*, Spices and condiments — Determination of volatile oil content (hydrodistillation method)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EAS 99 and the following apply.

3.1
masala
is a mixture of spices prepared by grinding clean, dried and sound spices and condiments.

3.2
tea masala
Is a mixture of spices used to season tea

3.3
extraneous matter
includes dust, dirt, stones, clay particles and pieces of wood, all particles originating from the plant other than ingredients used in making tea masala

4 Requirements

4.1 General requirements

4.1.1 Tea masala shall be prepared by grinding clean, dried and sound spices and condiments. The major ingredients shall include cinnamon, cardamom, black pepper and ginger. Tea masala shall be prepared by 100 % spices and condiments as listed in EAS 99.

4.1.2 The taste and odour of the tea masala shall be fresh, pleasant and characteristic of the designated product.

4.1.3 Tea masala shall be free from extraneous matter visible to the naked eye.

4.1.4 Tea masala shall be free from living insects, and practically free from moulds, dead insects, insect fragments and rodent contamination.

4.2 Specific quality requirements

4.2.1 Tea masala shall comply with the specific quality requirements specified in Table 1.

Table 1 — Quality requirements for tea masala

S/No.	Characteristic	Requirement	Test method
i)	Moisture % m/m, max.	10.00	ISO 939
ii)	Volatile oil ml/100 g %m/m, min.	1.5	ISO 6571
iii)	Total ash % m/m, max.	8	ISO 928
iv)	Acid insoluble ash % m/m, max.	2	ISO 930
v)	Non-volatile ether extract % m/m, min.	7.5	ISO 1108
vi)	Crude fibre %m/m, max.	15	Annex A

4.2.2 Tea masala shall be ground to such fineness that all of it passes through a sieve of 500 micron (0.500 mm).

5 Food additives

Tea masala shall be free from added colouring matter, flavour and preservatives.

6 Contaminants

6.1 Pesticide residues

Pesticide residues in tea masala shall not exceed maximum residue limit as established by the Codex Online Guideline for pesticide residue in food.

6.2 Heavy metal

Heavy metals in tea masala shall not exceed maximum residue limit as stipulated in Codex Stan 193.

6.3 Aflatoxin limits.

Total aflatoxin shall not exceed 10 µg/L and aflatoxin B_1 shall not exceed 5 µg/L when tested with ISO 16050.

7 Hygiene

Tea masala shall be manufactured and handled in a hygienic manner in accordance with EAS 39 and shall conform to the microbiological limits stipulated in Table 2.

Table 2 — Microbiological limits for tea masala

S/No.	Organism	Limit	Test method
i)	Total plate count, cfu/g, max.	10^5	ISO 4833-1
ii)	Yeast and mould cfu/g, max.	10^3	ISO 7954
iii)	Salmonella spp. per 25 g, max.	Absent	ISO 6579
v)	*Escherichia coli* MPN/g, max.	Absent	ISO 7251

8 Weights and measures

The weight and fill of tea masala shall comply with the weights and measures regulations of Partner States or equivalent legislation.

9 Packaging

9.1 Tea masala shall be packed in clean and sound container made of food grade material and sealed with temper-proof seal. The container shall be made of a material which does not impart any smell, does not react with tea masala and protect it from ultra violet radiation, ingress of moisture and loss of volatile matter.

9.2 The packaging shall not be a source of contamination, and shall protect the product safety and quality during transportation and storage.

10 Labelling

In addition to the requirements of EAS 38, the following specific labelling requirements shall apply and shall be legibly and indelibly marked:

a) Common name of the product;

b) brand name or trade name if any;

c) name, physical location and address of manufacturer;

d) list of ingredients in descending order of proportion by mass;

e) net weight;

f) date of manufacture/packing;

g) batch identification number/code;

h) best before;

i) country of origin; and

j) storage condition.

11 Sampling

Sampling of tea masala shall be done in accordance with ISO 948.

Annex A
(normative)

Determination of crude fibre

A.1 Reagents

A.1.1 Petroleum ether:

A.1.2 *Dilute sulphuric acid*: 1.25 % *(m/v)* accurately prepared.

A1.3 Sodium *hydroxide solution*: 1.25 % *(m/v)* accurately prepared.

A.1.4 *Ethanol*: 95 % (v/v)

A.2 Procedure:

Weigh accurately about 2.5 g of the ground material into a thimble and extract for about 1 hour with petroleum ether using a Soxhlet apparatus. Transfer the material in the thimble to a one-litre flask. Take 200 ml of the dilute sulphuric acid in a beaker and bring to boil. Transfer the whole of the boiling acid to the flask containing the fat-free material and immediately connect the flask with a water-cooled reflux condenser and heat so that the contents of the flask begin to boil within 1 minute. Rotate the flask frequently taking care to keep the material from remaining on the sides of the flask and out of contact with the acid. Continue boiling for exactly 30 minutes. Remove the flask and filter through fine linen (about 18 thread to the centimetre) or through a coarse acid washed hardened filter paper, held in a funnel and wash with boiling water until the washings are no longer acidic to litmus paper. Bring some quantity of sodium hydroxide solution to boil under reflux condenser. Wash the residues on the filter into the flask with 200 ml of boiling sodium hydroxide solution. Immediately connect the flask with the reflux condenser and boil for exactly 30 minutes. Remove the flask and immediately filter through the linen or the filter paper.

Thoroughly wash the residue with boiling water and transfer to a Gooch crucible prepared with a thin but compact layer of ignite asbestos. Wash the residue thoroughly first with hot water and then with about 15 ml of ethyl alcohol and with three successive washings of 15 ml of petroleum ether each. Dry the Gooch crucible and contents at 105 ± 1 °C in an air-oven for 3 hours, cool and weigh. Repeat the process of drying for 30 minutes, cooling and weighing until the difference between two consecutive weighings is less than 1 mg. Incinerate the contents of the Gooch crucible in the muffle furnace at 550 ±20 °C until all the carbonaceous matter is burnt. Cool the Gooch crucible containing the ash in a desiccator and weigh.

A.3 Calculation

Crude fibre (on dry basis), percent by mass

$$= 100 \frac{(M_1 - M_2)}{M} * \frac{100}{(100-H)}$$

Where: M_1 = mass in g of Gooch crucible and contents before ashing,

M_2 = mass in g of Gooch crucible containing asbestos and ash,

M = mass in g of the material taken for the test

H= moisture content of the sample as received

