



DRAFT EAST AFRICAN STANDARD

Dried and salted dried fish — Specification

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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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Dried and salted dried fish — Specification

1 Scope

This draft standard specifies the requirements and the methods of sampling and test for various types of dried and salted dried fish. This standard does not apply for *Rastrineobola argentea* species and smoked fish.

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.

CODEX STAN 192, *General standard for food additives*

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

CAC/RCP 52[CD/K/521:2010], *Code of practice for fish and fishery products*

EAS 12, *Drinking (potable water) — Specification*

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

EAS 103, *Schedule for permitted food additives*

ISO 4833, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of microorganisms — Colony-count technique at 30 degrees C*

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

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 6888-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 2: Technique using rabbit plasma fibrinogen agar medium*

ISO 6888-3, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 3: Detection and MPN technique for low numbers*

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 11290-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of Listeria monocytogenes — Part 2: Enumeration method*

ISO 7937, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of Clostridium perfringens — Colony-count technique*

ISO 27085, Animal feeding stuffs -- Determination of calcium, sodium, phosphorus, magnesium, potassium, iron, zinc, copper, manganese, cobalt, molybdenum, arsenic, lead and cadmium by ICP-AES

ISO 16050, *Foodstuffs — Determination of aflatoxin B₁, and the total content of aflatoxin B₁, B₂, G₁ and G₂ in cereals, nuts and derived products — High performance liquid chromatographic method*

ISO 6496, Animal feeding stuffs -- Determination of moisture and other volatile matter content

ISO 5985, Animal feeding stuffs -- Determination of ash insoluble in hydrochloric acid

ISO 21527-1, Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of yeasts and moulds -- Part 1: Colony count technique in products with water activity greater than 0.9

AOAC 990.04, Mercury (Methyl) in seafood by liquid chromatography-atomic absorption spectroscopy (LC-AAS)

AOAC 977.15/974.14, Mercury in fish by flame atomic absorption spectroscopy (FAAS)

3 Terms and definitions

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

3.1

dry salting (kench curing)

process of mixing fish with suitable food grade salt and stacking the fish in such a manner that the excess of the resulting brine drains away

3.2

wet salting (pickling)

process whereby fish is mixed with suitable food grade salt and stored in water-tight containers under the resultant brine (pickle) which forms by solution of salt in the water extracted from the fish tissue. The fish is subsequently removed from the container and stacked so that the brine drains away

3.3

split fish

fish split and with approximately the anterior two-thirds of the backbone removed

3.4

split fish with entire backbone

fish split with the whole of the backbone intact

3.5

fillets

fish split and divided longitudinally into two parts and with fins, fin bones, tail and the whole of the backbone removed

3.6

cuts

split fish or fillets cut up transversely into fairly regular pieces

3.7

Food grade material

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

3.8**Sound**

free from physiological deterioration or adulteration/contamination, that appreciably affects their appearance, edibility and the keeping quality of the dried fish

3.9**foreign matter**

any material which is not of fish origin e.g. sand, stones, metallic chips, plant parts etc

4 Requirements**4.1 General requirements**

Dried and salted dried fish shall:

- be obtained from fish which has been gutted/ungutted with or without-beheading, splitting or filleting
- have characteristics colour of the skin and flesh shall not show any evidence of halophilic mould (dun) nor visible evidence of red, halophilic bacteria (pink).
- be free from visible fungal, insect or mite infestation.
- be presented, with or without the black membrane (belly lining), scaled or unscaled,
- use the salt that comply with the requirements of EAS 35.
- when tested as per annex A the level of histamine in species with high levels of histidine such as scromboids shall not exceed 20ppm
- the characteristic odour of the dried and salted dried fish
- be free from artificial colouring matter and firming agents except common salt.

4.2 Specific requirements

Dried and salted dried fish shall comply with those specific requirements stipulated under table 1.

Table 1- Chemical requirements for dried and salted dried fish

S/N	Parameter	requirements		Test methods
		Dried fish	Dried salted fish	
i	Moisture, %, max.	14	30	ISO 6496
ii	Sodium chloride, % by weight on moisture free basis, max	5	30	
iii	Acid insoluble ash, %, max.	0.5	0.5	ISO 5985

5. Hygiene

The product covered by the provisions of this standard shall be prepared and handled in accordance with, EAS 39 and shall comply with microbiological limits given in table 2.

Table 2 — Microbiological limits for dried and salted dried fish

S/No.	Type of microorganism	Maximum limit	Method of test
i	<i>Salmonella</i> in 25 g	Absent	ISO 6579
ii	<i>E. coli</i> per g	Absent	ISO 7251
iii	<i>Staphylococcus aureus</i> per 10 g cfu	10 ²	ISO 6888

iv	Total viable count cfu	10 ⁵ /g	ISO 4833
v	<i>Vibrio spp</i> cfu	Absent	ISO 21872
vi	Yeast and mould	10 ²	ISO 21527-1

6. Contaminant limits

Dried and salted dried fish shall comply with the contaminant limits given in table 3.

Table 3 — Contaminant limits for dried and salted dried fish

S/NO	Type of contaminant	Maximum limit (mg/kg)	Methods of test
i	Arsenic	0.1	ISO 27085
ii	Mercury	0.5	AOAC 977.15/974.14
iii	Lead	0.3	ISO 27085
iv	Cadmium	0.3	ISO 27085
v	Methyl mercury	0.5	AOAC 990.04

7. Food additive

Permitted food additives may be used in the processing of dried and salted dried fish in accordance with CODEX STAN192.

8. Weight and measures

The fill and the weight of the product shall comply with Weight and Measures regulations of Partner States or equivalent legislation.

9. Packaging and labelling

9.1 Packaging

9.1.1 Dried and salted dried fish shall be packaged in food grade containers which will safeguard the hygienic, nutritional, and organoleptic qualities of the product.

9.1.2 The containers, including packaging material, shall be made of substances which are safe and suitable for their intended use. They shall not impart any toxic substance or undesirable odour or flavour to the product.

9.2 Labelling

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

- (i) Name of the product shall be “dried or salted dried fish”
- (ii) Name and physical address of processor/packer.
- (iii) Net weight in grams or kilograms.
- (iv) Date of packaging.
- (v) Batch or code number.
- (vi) Expiry date.

(vii) Storage conditions.

Viii) Instruction for use

(ix) Country of origin'

10 Method of sampling and test

Sampling and tests shall be done as per test methods described in respective table

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