DEAS 828: 2022

ICS 67.120.30

DRAFT EAST AFRICAN STANDARD

Dried and salted dried fish — Specification

EAST AFRICAN COMMUNITY

Second Edition 2022

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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.

In order to achieve this objective, the Community established an East African Standards Committee mandated to develop and issue East African Standards.

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.

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.

EAS 828 was prepared by the Technical Committee EASC/TC 003, *Fish and fishery products.*

Dried and salted dried fish and fish products — Specification

1 Scope

This Draft East African Standard specifies the requirements and the methods of sampling and test for dried and salted dried fish and fish products excluding dried freshwater sardines 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.

AOAC 937.09, *Salt (chlorine and sodium chloride) in sea food*

AOAC 952.13, *Arsenic in food — Silver diethyldibocarbamate method*

AOAC 972.23*, Lead in fish —– Atomic absorption spectrophotometric method*

AOAC 973.34*, Cadmium in food — Atomic absorption spectrophotometric method*

AOAC 977.13*, Histamine in sea food — Fluorometric method*

AOAC 983.20*, Mercury (methyl) in fish and shellfish — Gas chromatographic method*

CXG 50-2004 *General guideline on sampling*

CXC 52-2003*, Code of practice for fish and fishery products*

CODEX STAN 192-1995*, General standard for food additives*

EAS 35*, Edible salt — Specification*

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

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

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

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

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

ISO 6888 (all parts)*, Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species)*

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 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 0,95*

ISO/TS 21872 (all parts), *Microbiology of food and animal feeding stuffs — Horizontal method for the detection of potentially enteropathogenic Vibrio spp.*

3 Terms and definitions

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

3.1

dried fish and fish product

fish product that has been dried whole or gutted, beheaded, cut and / or split

3.2

salted dried fish and fish product

fish product that has been cured with dry or wet salting either whole or gutted, beheaded, cut and / or split".

3.3
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

3.4
wet salting (pickling)
process of mixing fish with suitable food grade salt and storing in water-tight containers under the resultant brine (pickle) which is formed by solution of salt in the water extracted from the fish tissue

3.5
split fish
fish split and with approximately the anterior two-thirds of the backbone removed

3.6
split fish with entire backbone
fish split with the whole of the backbone intact

3.7
fillets
fish split and divided longitudinally into two parts and with fins, fin bones, tail and the whole of the backbone removed

3.8
cuts
split fish or fillets cut up transversely into fairly regular pieces

3.9
food grade container
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, colour or flavour to the product

3.10

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

3.11
foreign matter
any material which is not of fish origin such as sand, stones, metallic chips and plant parts

4 Requirements

4.1 General requirements

4.1.1 Raw materials**4.1.1.1** Dried and salted dried fish and fish product shall be obtained from fish which has been gutted/ungutted with or without-beheading, splitting or filleting

4.1.1.2 Salted dried fish and fish product may be prepared from sound fermented fish and fish product of an acceptable quality and fit for human consumption.

4.1.1.3 Water used during fish processing shall be potable complying with EAS 12.

4.1.1.4 The salt used shall comply with the requirements of EAS 35.

4.1.1.5 Flavouring used shall comply with guidelines for use of flavorings CXG 66-2008

4.1.2 Finished product

4.1.2.1 Dried and salted dried fish and fish product may:

a. have characteristics colour of the skin and flesh of the dried and salted dried fish; and

b. have the characteristic odour of the dried and salted dried fish of the specific species

4.1.2.2 Dried and salted dried fish and fish product shall:

a) not show any evidence of halophilic mould (dun) nor visible evidence of red, halophilic bacteria (pink);

b) be free from visible fungal, insect or mite infestation;

c) be presented, with or without the black membrane (belly lining), scaled or unscaled;

d) and

e) Be free from artificial colouring matter and firming agents except salt.

f) be free from any parasites.

4.2 Specific requirements

4.2.1 Dried and salted dried fish shall comply with the requirements specified in Table 1.

Table 1 — Specific requirements for dried and salted dried fish

S/N	Parameter	Requirement		Test method
		Dried fish	Dried salted fish	
i)	Moisture, %, max.	14	30	Annex A
ii)	Sodium chloride, % by weight on moisture free basis, max.	5	30	AOAC 937.09
iii)	Acid insoluble ash, %, max.	0.5	0.5	ISO 5985

4.2.2 When tested in accordance with AOAC 977.13, the level of histamine in fish such as scromboids species shall not exceed 20 ppm.

5 Food additives

Food additives may be used in the preparation and processing of dried and salted dried fish in accordance with CODEX STAN 192.

6 Hygiene

Dried and salted dried fish and fish product shall be produced and handled in a hygienic manner in accordance with EAS 39 and CXC 52 and shall comply with the microbiological limits given in Table 2.

Table 2 — Microbiological limits for dried and salted dried fish and fish product

S/No.	Type of microorganism	Maximum limit	Test method
i)	*Salmonella* in 25 g	Absent	ISO 6579-1
ii)	*Escherichia coli,* CFUg	Absent	ISO16649-2
iii)	*Staphylococcus aureus,* CFU/g	10^3	ISO 6888-1
iv)	Total viable count, CFU/g	10^5	ISO 4833-1
v)	*Vibrio spp/25g*	Absent	ISO/TS 21872
vi)	Yeast and moulds, CFU/g	10^3	ISO 21527-2

7 Contaminants

7.1 Heavy metals

Dried and salted dried fish shall comply with the heavy metal limits given in Table 3.

Table 3 — Heavy metal limits for dried and salted dried fish

S/No.	Heavy metal	Maximum limit, mg/kg	Test method
ii)	Lead	0.3	AOAC 972.23
iv)	Mercury	0.5	AOAC 983.20

7.2 Aflatoxins

When tested in accordance with ISO 16050, the level of total aflatoxin in dried and salted dried fish shall not exceed 10 µg/kg.

7.3 Veterinary drug residues

Dried and salted dried fish shall comply with those maximum veterinary drug residue limits established by the Codex Alimentarius Commission.

7.4 Pesticide residues

Dried and salted dried fish shall comply with those maximum pesticides residue limits established by the Codex Alimentarius Commission.

8 Packaging

Dried and salted dried fish shall be packaged in food grade containers.

9 Labelling

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

a) species name;

a) name of the product shall be “Dried or salted dried fish”;

b) name and physical address of processor/packer;

c) net weight in grams or kilograms;

d) production date and or batch number;

e) expiry date;

f) storage conditions;

g) instruction for use; and

h) country of origin.

10 Sampling

Sampling shall be done in accordance with CXG 50.

Annex A
(normative)

Determination of moisture content

A.1 Principle

The sample is dried to constant weight in an oven.

A.2 Apparatus

A.2.1 Moisture dishes, made of nickel, stainless steel, aluminium or porcelain, with well-fitting lids

A.2.2 Oven

A.2.3 Desiccator

A.3 Procedure

Weigh accurately about 10 g of the sample in a suitable moisture dish, previously dried in an oven and weighed. Place the dish in an oven maintained at 105 °C ± 2 °C for five hours. Cool the dish in a desiccator and weigh with the lid on. Repeat the process of heating, cooling and weighing at half-hour intervals until the loss in mass between two successive weightings is less than 1 mL. Record the lowest mass obtained. Preserve the dish containing this dried material in a desiccator for the determination of total ash (see B.2.3).

A.4 Calculation

The moisture content shall be expressed as follows:

$$\text{Moisture, \% by mass} = \frac{m_1 - m_2}{m_1 - m} \times 100$$

where

m_1 is the mass, in grams, of the moisture dish with material before drying;

m_2 is the mass, in grams, of the moisture dish with the material after drying; and

m is the mass, in grams, of the empty moisture dish.

