DEAS 873: 2022

ICS 67.120.30

DRAFT EAST AFRICAN STANDARD

Frozen tuna loins — Specification

EAST AFRICAN COMMUNITY

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

Frozen tuna loins — Specification

1 Scope

This Draft East African Standard specifies requirements, sampling and test methods for frozen tuna loins intended for human consumption.

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 31.145, *Volatile bases in fish — Ammonia ion selective electrode Method*

AOAC 952.13, *Arsenic in food — Silver diethyldithiocarbamate 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, *General guidelines on sampling*

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

EAS 12, *Drinking (potable water) — 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 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) — Part 1: Technique using Baird-Parker agar medium*

ISO 11290 (all parts), *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of Listeria monocytogenes*

ISO 16649-3*, Microbiology of the food chain — Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli — Part 3: Detection and most probable number technique using 5-bromo-4-chloro-3-indolyl-ß-D-glucuronide*

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
tuna
Members of the tribe thunnini, a subgroup of the family Scombridae

3.2
loins
large boneless fish meat cut from the dorsal and belly area of a whole tuna

3.3
sound
free from physiological deterioration or adulteration/contamination, that appreciably affects the quality of the fish

3.4
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

3.5
chunks
mixture of pieces of fish with dimensions of not less than 1.2 cm in each direction and in which the original muscle structure is retained

3.6
frozen fish blocks
frozen fish packed in bulk containing more than one segment/piece in a unit

3.7
grated
mixture of particles of fish that have been reduced to a uniform size and in which particles are discrete and do not comprise a paste

3.8
frozen tuna loins
tuna loins which have undergone a freezing process and maintained at a core temperature of -18 °C or below during storage, transportation and distribution

4 Requirements

4.1 General requirements

4.1.1 The raw material shall be fresh tuna.

4.1.2 The tuna used to prepare the loins shall be clean, wholesome and sound.

4.1.3 Water used during processing shall comply with EAS 12.

4.1.4 The product shall be practically free from skin (except when presented and labelled as "skin-on" pack), scales, prominent blood streaks, blood-clots, bones, bruises, and red muscles known as red meat.

4.1.5 The colour of the product shall be characteristic of a particular species.

4.1.6 The product in its thawed state shall be free from mushiness, waterlogging or honey comb texture.

4.1.7 The product in its thawed state shall be free from off flavour and odour.

4.1.8 The product shall be stored, transported and distributed in a suitable and clean cold storage maintained at a temperature of -18 °C or below.

4.1.9 The product may be presented as frozen fish block, grated or as a mixture of pieces of fish (chunks) with dimensions of not less than 1.2 cm in each direction and in which the original muscle structure is retained".

4.2 Specific requirements

The product shall comply with the specific requirements given in Table 1.

Table 1 — Specific requirements for frozen tuna loins

S/N	Parameter	Maximum limit, mg/kg	Test method
(i)	Histamine	100	AOAC 977.13
(ii)	Total Volatile Base, Nitrogen	350	AOAC 31.145

5 Hygiene

The product shall be prepared and handled in accordance with EAS 39 and CXC 52 and shall comply with microbiological limits given in Table 2.

Table 2 — Microbiological limits for frozen tuna loins

S/No	Micro-organism	Microbiological limit	Test method
i)	*Salmonella Spp.* per 25 g	Absent	ISO 6579
ii)	*Escherichia coli,CFU/g*	Absent	ISO 16649-2
iii)	*Staphylococcus aureus,* CFU/g, max.	10^3	ISO 6888
iv)	*Vibrio Spp.*/25 g	Absent	ISO/TS 21872
vi)	Total viable count, CFU/g, max.	10^5	ISO 4833-1

6 Contaminants

6.1 Heavy metals

The product shall comply with the heavy metal limits given in Table 3.

Table 3 — Heavy metal limits for frozen tuna loins

S/No.	Heavy metal	Maximum limit, mg/kg	Test method
(ii)	Lead	0.3	AOAC 972.23
(iv)	Methyl mercury	1.2	AOAC 983.20

NOTE: If the total mercury concentration is below or equal to the ML for methyl mercury, no further testing is required, and the sample is determined to be compliant with the ML. If the total mercury concentration is above the ML for methyl mercury, follow-up testing shall be conducted to determine if the methyl mercury concentration is above the ML.

6.2 Pesticide and veterinary drug residues

The product shall comply with the maximum residual limits for pesticides and veterinary drug residues established by the Codex Alimentarius Commission.

7 Packaging

The product shall be packed in containers made from food grade packaging material..

8 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 product shall appear as “Frozen tuna loins”;

b) name and physical address of the processor;

c) batch number;

d) net content in grams or kilograms;

e) form of presentation;

f) production date;

g) expiry date;

h) instructions of use;

i) condition of storage; and

j) country of origin.

9 Sampling

Sampling shall be done in accordance with CXG 50-

Bibliography

KS 1642:2000, *Specification for frozen tuna loins*