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First edition

**DRAFT MALAWI STANDARD
(SADC HARMONIZED)**

**Dried fresh water small pelagics –
Specification**

Note: This is a draft standard and it shall neither be used nor regarded as a Malawi standard

Dried fresh water small pelagics – Specification

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FOREWORD

This draft standard is a Southern African Development Community (SADC) Harmonized Text (SADCSTAN) covering the requirements and methods of tests for dried fresh water small pelagic.

The harmonization of standards and technical regulations in the SADC region is an obligation under the SADC protocol on Trade which was established under the SADC Treaty to provide for elimination of tariffs and non-tariff barriers to trade.

This standard is identical to SADC HT 79, *Dried fresh water small pelagic – Specification*.

Acknowledgement is made for the use of the above standard.

TECHNICAL COMMITTEE

This draft standard was prepared by the Technical Committee *MBS/TC 39, Fish and fishery products*, and the following companies, organizations and institutions were represented:

Malawi Bureau of Standards;

MALDECO Fisheries;

Malawi College of Fisheries;

Ministry of Agriculture, Irrigation and Water Development – Department of Fisheries;

Lake Harvest; and

Lilongwe University for Agriculture and Natural Resources.

NOTICE

This standard shall be reviewed every five years, or earlier when it is necessary, in order to keep abreast of progress. Comments are welcome and shall be considered when the standard is being reviewed.

DRAFT MALAWI STANDARD

Dried fresh water small pelagics – Specification

1 SCOPE

This draft standard specifies the requirements and methods of test for dried *Engraulicypris sardella*, *Rastrineobola argentea*, *Rastrineobola sardella*, *Stolothrissa tanganicae*, *Limnothrissa miodon*, and *Poecilothrissa moeruensis* and *Engraulicypris bangweuluensis*.

Note: This includes common names used such as Kapenta, Chisense, Usipa, Matemba Omena/Dagaa/mukene/Ndagala and isambaza).

2 NORMATIVE REFERENCES

The following standard contains provisions, which through reference in this text, constitute provisions of this draft standard. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this draft standard are encouraged to take steps to ensure the use of the most recent edition of the standard indicated below. Information on current valid national and international standards can be obtained from the Malawi Bureau of Standards.

MS 19: *Labelling of prepacked foods – General standard*;

MS 21: *Food and food processing units – Code of hygienic conditions*;

MS 214: *Potable water – Specification*;

MS 302: *General standard for contaminants and toxins in foods and feed*;

MS 790: *Code of hygienic practice for fish and fishery products*;

ISO 4832: *Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of coliforms – Colony-count technique*;

ISO 4833: *Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of microorganisms – Colony-count technique at 30 degrees*;

ISO 6579: *Microbiology of food and animal feeding stuffs – Horizontal method for the detection of Salmonella spp.*;

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 7937: *Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of Clostridium perfringens – Colony-count technique*;

ISO 13720: *Meat and meat products – Enumeration of Pseudomonas spp.*;

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 21567: *Microbiology of food and animal feeding stuffs – Horizontal method for the detection of Shigella spp.*;

ISO/TS 21872-1: *Microbiology of food and animal feeding stuffs – Horizontal method for the detection of potentially enteropathogenic Vibrio spp. – Part 1: Detection of Vibrio parahaemolyticus and Vibrio cholera*;

ISO/TS 21872-2: *Microbiology of food and animal feeding stuffs – Horizontal method for the detection of potentially enteropathogenic Vibrio spp. – Part 2: Detection of species other than Vibrio parahaemolyticus and Vibrio cholera*; and

AOAC: *Association of Analytical Chemist*

3 DEFINITIONS

For the purpose of this draft standard, the following definitions shall apply:

3.1

dried small pelagics

whole product presented as a dried fresh water fish which has not been gutted beheaded or split and subsequently washed and dried

3.2

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

3.3

foreign matter

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

3.4

sound

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

4. ESSENTIAL COMPOSITION AND QUALITY FACTORS

4.1 Fish shall be prepared from sound fish of the designated species, which is of an acceptable quality and fit to be sold fresh dry for human consumption.

4.2 The product shall be free from objectionable extraneous matter.

4.3 The product shall be free from pest infestation.

4.4 The dried fish shall contain not more than 10 µg/Kg aflatoxin of which not more than 5 µg may be aflatoxin B1 when tested in accordance with ISO 16050.

4.5 The product shall be free from parasites which represent a hazard to health.

4.6 The skin of the dried fish shall have the characteristic silvery colour and shall not show any evidence of halophilic mould “dun” nor visible evidence of red, halophilic bacteria (pink).

4.7 The product shall have the characteristic dried fish odour. It shall be free from any indication of spoilage.

4.8 The dried fish shall have a minimum shelf-life of six months.

4.9 The dried fish shall have a moisture content of between 5 to 7 %, when tested according to AOAC 950.46.B (Air drying (a)).

4.10 The dried fish shall be presented 95 % whole and fish shall not show discolouration.

4.11 The product shall comply with the microbiological limits given in Table 1.

Table 1 – Microbiological limits for dried fresh water small pelagics

1	2	3	4
S/No.	Type of microorganism	Maximum limit	Method of test
(i)	<i>Pseudomonas</i> species per g	Absent	ISO 13720
(ii)	<i>Salmonella</i> in 25 g	Absent	ISO 6579
(iii)	<i>E. coli</i> per g	Absent	ISO 7251
(iv)	<i>Shigella</i> per g	Absent	ISO 21567
(v)	Coliforms g (per 100 g)	Absent	ISO 4832
(vi)	<i>Staphylococcus aureus</i> per 10 g	$2 \times 10^3/g$	ISO 6888
(vii)	Total viable count	$10^5/g$	ISO 4833
(viii)	<i>Vibrio cholerae</i>	Absent	ISO/TS 21872
(ix)	<i>Clostridium perfringens</i>	Absent	ISO 7937

5. HYGIENE

5.1 The product covered by the provisions of this draft standard shall be prepared and handled in accordance with MS 21 and MS 790.

5.2 Water used for washing the fish shall comply with MS 214.

6. CONTAMINANTS

The product shall comply with the contaminant limits specified in MS 302.

8. PACKAGING AND LABELLING

8.1 Packaging

8.1.1 Any container for dried fish shall be food grade, clean, dry and shall protect the organoleptic and other quality characteristics of the product during storage and transport.

8.1.2 The package shall not pass on to the product any foreign odour, flavour, and colour or other foreign matter.

8.2 Labelling

The containers shall be labelled in accordance with MS 19 and shall include the following:

8.2.1 Name of the product;

8.2.2 Name and physical address of processor/packer;

8.2.3 Net weight in grams or kilograms;

8.2.4 Date of processing;

8.2.5 Batch number;

8.2.6 Best before date or expiry date;

8.2.7 Storage conditions; and

8.2.8 Country of origin or 'Product of' and the exact geographical location of the harvest.

THE MALAWI BUREAU OF STANDARDS

The Malawi Bureau of Standards is the standardizing body in Malawi under the aegis of the Ministry of Industry and Trade. Set up in 1972 by the Malawi Bureau of Standards Act (Cap: 51:02), the Bureau is a parastatal body whose activities aim at formulating and promoting the general adoption of standards relating to structures, commodities, materials, practices, operations and from time to time revise, alter and amend the same to incorporate advanced technology.

CERTIFICATION MARK SCHEME

To bring the advantages of standardization within the reach of the common consumer, the Bureau operates a Certification Mark Scheme. Under this scheme, manufacturers who produce goods that conform to national standards are granted permits to use the Bureau's "Mark of Quality" depicted below on their products. This Mark gives confidence to the consumer of the commodity's reliability



