CD/K/696:2010
ICS 67.120

EAST AFRICAN STANDARD

Canned mutton biryani — 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 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.

East African Community

P O Box 1096

Arusha

Tanzania

Tel: 255 27 2504253/8

Fax: 255-27-2504481/2504255

E-Mail: eac@eachq.org

Web: www.each.int

Introduction

In the preparation of this East African Standard, the following sources were consulted extensively:

IS 13165:1991(R2000), *Meat and Meat Products — Mutton Biryani(Canned) — Specification*

Codex Alimentarius website: http://www.codexalimentarius.net/mrls/pestdes/jsp/pest_q-e.jsp

USDA Foreign Agricultural Service website: http://www.mrldatabase.com

USDA Agricultural Marketing Service website: http://www.ams.usda.gov/AMSv1.0/Standards

USDA Plant Inspectorate Service website: http://www.aphis.usda.gov/import_export/plants

European Union: http://ec.europa.eu/sanco_pesticides/public

Assistance derived from these sources is hereby acknowledged.

Contents

Canned mutton biryani — Specification

1 Scope

This East African Standard specifies requirements, methods of test and sampling of mutton biryani canned.

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 Official Method 931.06:1931, *Phosphorus (Total) (P_2O_5) in Eggs*

CAC/RCP 1, *Recommended international code of practice — General principles of food hygiene*

CD-K-673:2010, *Porcine (pig) meat — Carcases and cuts*

CD-K-683:2010, *Smoked bacon — Specification*

CD-K-692:2010, *Mutton and goat meat canned in brine — Specification*

CD-K-693:2010, *Animal casings — Specification*

CD-K-697:2010, *Code of hygienic practice for meat*

CD/K/700:2010, *Ante-mortem and post-mortem inspection of meat animals — Code of practice*

EAS 5, *Refined white sugar — Specification*

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

EAS 35, *Edible salt — Specification*

EAS 38, *Labelling of prepackaged foods — Specification*

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

EAS 41, *Fruits, vegetables and derived products — Sampling and methods of test*

EAS 103, *Schedule for permitted food additives*

EAS 123, *Distilled water — Specification*

ISO 936, *Meat and meat products — Determination of total ash*

ISO 937, *Meat and meat products — Determination of nitrogen content (Reference method)*

ISO 1442, *Meat and meat products — Determination of moisture content (Reference method)*

ISO 1443, *Meat and meat products — Determination of total fat content*

ISO 1444, *Meat and meat products — Determination of free fat content*

ISO 1736, *Dried milk and dried milk products — Determination of fat content — Gravimetric method (Reference method)*

ISO 1737, *Evaporated milk and sweetened condensed milk — Determination of fat content — Gravimetric method (Reference method)*

ISO 1841-1, *Meat and meat products — Determination of chloride content — Part 1: Volhard method*

ISO 1841-2, *Meat and meat products — Determination of chloride content — Part 2: Potentiometric method*

ISO 2294, *Meat and meat products — Determination of total phosphorus content (Reference method)*

ISO 2917, *Meat and meat products — Measurement of pH — Reference method*

ISO 2918, *Meat and meat products — Determination of nitrite content (Reference method)*

ISO 3091, *Meat and meat products — Determination of nitrate content (Reference method)*

ISO 3496, *Meat and meat products — Determination of hydroxyproline content*

ISO 4134, *Meat and meat products — Determination of L-(+)- glutamic acid content — Reference method*

ISO 4831, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of coliforms — Most probable number technique*

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 C*

ISO 5537, *Dried milk — Determination of moisture content (Reference method)*

ISO 5553, *Meat and meat products — Detection of polyphosphates*

ISO 5554, *Meat products — Determination of starch content (Reference method)*

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

ISO 6491, *Animal feeding stuffs — Determination of phosphorus content — Spectrometric method*

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

ISO 8156, *Dried milk and dried milk products — Determination of insolubility index*

ISO 9390, *Water quality — Determination of borate — Spectrometric method using azomethine-H*

ISO 13493, *Meat and meat products — Determination of chloramphenicol content — Method using liquid chromatography*

ISO 13496, *Meat and meat products — Detection of colouring agents — Method using thin-layer chromatography*

ISO 13730, *Meat and meat products — Determination of total phosphorus content — Spectrometric method*

ISO 13965, *Meat and meat products — Determination of starch and glucose contents — Enzymatic method*

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 21527-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 2: Colony count technique in products with water activity less than or equal to 0.95*

3 Definitions and presentation

For the purpose of this standard, the following definitions shall apply.

3.1
Meat
Uncured and wholesome meat of sheep or goat used for making biryani.

3.2
offal
includes brain, liver, gut, paunches, udders, thymus, pancreas, spleen, lungs, salivary glands, lymphatic glands, testicles, uterus, ovaries, skin, cartilage and bony tissues

3.3
mutton biryani
a preparation containing rice, meat, spices, fat and salt

4 Requirements

4.1 Hygienic requirements

The material shall be prepared and handled under strict hygienic conditions as prescribed in EAS 39 and CD-K-697:2010 respectively.

4.1.1 Quality of water used for processing shall conform to EAS 12.

4.2 Ingredients

4.2.1 Quality of Meat

The meat used for preparation of biryani shall be of good quality, obtained from the carcass of only healthy animals, slaughtered in licenced premises and subjected to proper ante-mortem and post-mortem inspection as prescribed in CD/K/700:2010.

4.2.2 Rice

Only fine variety clean, wholesome rice shall be used for the production of biryani.

4.2.3 Salt

Salt used shall conform to EAs 35 and shall not exceed 3 percent (on dry basis) of the total net contents.

4.2.4 Other Ingredient

Other ingredients like spices shall be clean, sound, wholesome, fit for human consumption in all respects and conform to the relevant East African Standards.

4.2.5 Fat

Only pure, wholesome, edible, vegetable fat/oil or ghee shall be used for the frying of spices and preparation of biryani.

4.2.6 No artificial colouring matter shall be used in preparation biryani.

4.2.7 No preservative other than sodium or potassium nitrite up to a maximum of 100 ppm when tested as per ISO 2918, shall be used.

4.2.8 Tenderizing material either natural or artificial shall not be used.

4.2.9 Head meat, scrap meat, meat shanks, flanks and skirts and navel end of plates shall not be used.

4.3 Preparation and processing

4.3.1 The set meat shall be freed from blood clots, bruised material, skin, hair, stringy and fibrous tissue, tendons and excessive fat. Offals shall not be canned. Fascia and depot fat shall be separated as far as possible.

4.3.2 The meat with or without bones shall be cut into chunks or cuboids of 2.5 to 4 cm dimensions.

4.3.3 Rice grains before use shall be washed thoroughly with clean water.

4.3.4 After cleaning rice shall be mixed with spices and meat in suitable proportion and shall be filled in open top sanitary cans of suitable size. Water shall be added into the cans to make the net contents either 400 g or 800 g or as agreed to between the purchaser and the supplier. Proportion of rice and water (usually 1: 1) shall be such that it will ensure thorough cooking of rice and at the same time will not leave any free water in the finished product.

4.3.5 The cans, after filling in the right proportion shall be hermetically sealed and processed at such a temperature for such a length of time which shall ensure thorough cooking and adequate sterilization without burning, scorching or over cooking of the product.

4.4 Finished product

4.4.1 Flavour and appearance

Mutton biryani canned shall have characteristic flavour and taste. There shall be no free water in the can and the rice grains shall not stick to each other.

4.4.2 Fill of the container

The product shall occupy not less than 85 percent of total volume capacity of the container when tested according to the method prescribed in Annex A of CD-K-687-2010.

4.4.3 The product shall be free from foreign matter such as hair and skin. The product shall also be free from objectionable odour and flavour. The product shall not show any sign of burning, scorching and over cooking.

4.4.4 On opening of the can, the meat chunks shall not show any signs of disintegration.

4.4.5 Vacuum

The can shall give a negative pressure of not less than 150 mm of mercury at 27 ± 2 °C under normal atmospheric pressure.

4.4.6 Composition

4.4.6.1 The net content of the meat chunks with or without bone, in the mutton biryani canned, shall not be less than 17 ± 0.5 percent of the net contents of the can when tested as per the test method described in A.2.1. In case the meat chunks are with bones, the bone content in the chunks shall not be more than 2 percent of the net contents of the can when tested as per the method described in A.2.2.

4.4.6.2 In case of mutton biryani having meat chunks with bones, extra precaution shall be taken for proper sterilisation of the product. Also, the container must clearly indicates that the product contains meat with bones.

4.4.7 The material shall also conform to the limits for metallic impurities and microbiological activity as prescribed in Table 1.

Table 1 — Limits for metallic impurities and microbiological activity

Type of contaminant		Requirement	Method of test
(i)	Microbiological requirements	Shall be commercially sterile	Annex G of CD-K-692-2010
(ii)	Arsenic, mg/kg, max	1.0	EAS 41
(iii)	Copper, mg/kg, max	20.0	EAS 41
(iv)	Tin, mg/kg, max	250.0	EAS 41
(v)	Mercury, mg/kg, max	0.5	EAS 41
(vi)	Lead, mg/kg, max	2.5	EAS 41
(vii)	Cadmium, mg/kg, max	0.3	EAS 41
(viii)	Zinc, mg/kg, max	50.0	EAS 41

5 Packing and marking

5.1 Packing

5.1.1 Packing in cans

The material shall be canned in suitable open top sanitary cans. If the cans are lacquered than the meat lacquer used shall be such that it does not impart any foreign or unpleasant taste, smell and colour to the contents of the can and does not peel off during processing and storage.

5.1.2 Packing in cases

The cans shall be packed in suitable cases. The number of cans in each case shall be subject to agreement between the purchaser and vendor.

5.2 Marking

5.2.1 The labelling of the cans may be done either by printing or by stencilling or lithographing on the cans, or by attaching labels printed on papers or subject to agreement between the purchaser and the vendor.

5.2.2 The label shall give the following information:

a) Name of material along with brand name, if any;

b) Indication of the source of manufacture;

c) Net mass of the contents of the can;

d) Date of manufacture (to be embossed);

e) Batch or code number embossed indelibly on the cans;

f) Date of expiry, to be marked as 'Use Before ...'.

g) Ingredients of the cans in descending order by weight;

h) Public health authority license number and category;

j) Picture, if any, should reflect the contents; and

k) Storage and usage instructions.

5.3 Standards mark

The container may also be marked with a Standard Mark.

6 Sampling

Method of drawing representative samples of the materials and the criteria for conformity shall be as prescribed in Annex A of CD-K-692:2010.

7 Tests

7.1 Tests shall be carried out as prescribed in 4.4.1 to 4.4.7

7.2 Quality of reagents

Unless specified otherwise, pure chemicals and distilled water (see EAS 123) shall be employed in tests.

NOTE 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the results of analysis.

Annex A
(normative)

Method for determination of drained mass of chunks in biryani

A.1 Apparatus

A.1.1 16 mm sieve (aperture 16 mm). A sieve of 20.3 cm x 20.3 cm shall be used for 400 g tall cans. For bigger size cans sieve size should be 30.5 cm x 30.5 cm.

A.2 Procedure

A.2.1 Carefully weigh the clean and dry sieve and empty the contents of the can into the sieve in such a manner as to distribute the product evenly. Wash individual chunk with the help of warm water and allow excess water to drain out. Separate the chunks from rice with the help of a forcep in a separate dish and calculate the weight of meat chunks alone. Calculate the percentage of meat chunks as follows:

$$\frac{\text{Mass of meat chunks}}{\text{Net mass of the contents}} \times 100$$

A.2.2 Separate the meat chunks with bone.

Carefully remove the bone portion with the help of a scalpel. Weigh the bones and calculate the bones percent as follows:

$$\frac{\text{Mass of bones}}{\text{Net mass of the contents}} \times 100$$