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DRAFT EAST AFRICAN STANDARD

Tomato products — Specification — Part 3: Tomato juice

EAST AFRICAN COMMUNITY

Third Edition 2023

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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.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. 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 Principles and procedures for development of East African Standards.

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.

The committee responsible for this document is Technical Committee EAS/TC 025, *Processed fruits, vegetables and tubers.*

This third edition cancels and replaces the second edition (EAS 66-3:2017), which has been technically revised.

Attention is drawn to the possibility that some of the elements of this document may be subject of patent rights. EAC shall not be held responsible for identifying any or all such patent rights.

Tomato products — Specification — Part 3: Tomato juice

1 Scope

This Draft East African Standard specifies requirements, sampling and test methods for unfermented but fermentable juice, intended for direct consumption, obtained from fresh tomatoes (Solanum lycopersicum L). puree, paste or concentrates.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 971.27, *Sodium chloride in canned vegetables. Method I*

CODEX STAN 192, *General standards for food additives*

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

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

ISO 750, *Fruits and vegetables — Determination of titratable acidity*

ISO 1842, *Fruit and vegetable products — Determination of pH*

ISO 2173, *Fruit and vegetable products — Determination of soluble solids — Refractometric methods*

ISO 4833 (all parts), *Microbiology of the food chain — Horizontal methods for the enumeration of microorganisms*

ISO 6579-1, *Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella — Part 1: Detection of Salmonella spp.*

ISO 6633, *Fruits, vegetables and derived products — Determination of lead content — Flameless atomic absorption spectrometric method*

ISO 16649-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli — Part 2: Colony-count technique at 44 degrees C using 5-bromo-4-chloro-3-indolyl beta-D-glucuronide*

ISO 21527-1, *Microbiology of food and animal feedingstuffs — Horizontal methods for the enumeration of yeasts and moulds*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
tomato juice
unconcentrated liquid extracted from ripe and sound tomatoes puree, paste or concentrates

3.2
natural tomato soluble solids (Ntss) content
reading obtained on a refractometer at 20 °C expressed in terms of percent sucrose, of the clear serum obtained from a tomato product containing no added salt, and that is uncorrected for acidity

3.3
defects
presence of seeds, skins, stems, cores and other coarse or hard substance

4 Requirements

4.1 General requirements

Tomato juice shall

a) have a colour characteristic of the variety. No artificial colouring matter shall be added;

b) have a characteristic tomato flavour and shall be free from flavour foreign to the product;

c) have an even texture and consistency;

d) flows readily and shall have a normal amount of insoluble tomato solids in suspension; and

e) be free from defects including the following:

i) dark specks or scale-like particles;

ii) seeds or other objectionable particles of seeds;

iii) tomato peels; and extraneous matter

4.2 Specific requirements

Tomato juice shall comply with the compositional requirements indicated in Table 1 when tested in accordance with the methods specified therein.

Table 1 — Specific Requirements for tomato juice

S/N	Characteristic	Requirement	Test method
i)	Sodium chloride, percent by mass, max.	0.6	AOAC 971.27
ii)	Natural tomato soluble solids content at 20 °C, percent bymass, min.	4	ISO 2173
iii)	pH	Not higher than 4.3	ISO 1842
iv)	Titratable acidity, percent by mass, max.	10	ISO 750

5 Food additives

Food additives shall be used in accordance with CODEX STAN 192.

6 Contaminants

6.1 Pesticide residues

The product covered by the provisions of this Standard shall comply with those maximum residue limits established by the Codex Committee on Pesticide Residues for this commodity.

6.2 Heavy metal limits

When tested in accordance with ISO 6633, the lead content in tomato juice shall not exceed 0.05 mg/kg.

7 Hygiene

7.1 Tomato juice shall be prepared and handled in accordance with the appropriate provisions of EAS 39.

7.2 Tomato juice shall be free from pathogenic organisms and shall comply with the microbiological limits indicated in Table 2 when tested in accordance with the methods prescribed therein.

Table 2 — Microbiological limits for tomato juice

S/N	Type of micro-organism	Maximum limit	Test method
i)	Total viable counts, cfu/mL	10	ISO 4833 (All parts)
ii)	Yeast and moulds cfu/mL	Shall be absent	ISO 21527-1
iii)	*Escherichia coli*, cfu/Ml	Shall be absent	ISO 16649-2
iv)	*Salmonella* sp. per 25 mL	Shall be absent	ISO 6579-1

8 Packaging

Tomato juice shall be packed in suitable food grade containers. The containers shall be free from other products that may lead to contamination and alter the quality, composition, flavour, odour and taste of the products. Containers shall be air tight and shall be provided with tamper- proof seals and closures. Containers shall preclude contamination with or proliferation of microorganisms in the products during storage and transport.

9 Labelling

9.1 Labelling of retail containers

In addition to the requirements of EAS 38, the following specific labelling requirements shall apply and shall be legibly and indelibly labelled on each container:

a) name of product shall be “Tomato juice”;

b) name and physical address of manufacturer/importer;

c) country of origin;

d) date of manufacture and expiry date;

e) list of ingredients in descending order;

f) net content declared in SI units (metric system);

g) storage instructions;

h) instructions for use; and

i) batch number in code or in clear.

9.2 Labelling of non-retail containers

Information for non-retail containers shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the manufacturer, packer, distributor or importer, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer, distributor or importer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

10 Sampling

Sampling shall be done in accordance with Annex A.

Annex A
(normative)

Sampling

B.1 Definitions

B.1.1 Lot

Collection of primary containers or units of the same size, type, and style manufactured or packed under similar conditions and handled as a single unit of trade.

B.1.2 Lot size

Number of primary containers or units in the lot.

B.1.3 Sample size

Total number of sample units drawn for examination from a lot.

B.1.4 Sample unit

Container, a portion of the contents of a container, or a composite mixture of product from small containers that is sufficient for the examination or testing as a single unit. For fill of container, the sample unit shall be the entire contents of the container.

B.2 Sampling plans

Lot size (primary containers)	**Size of container, *n* [1]**
Net weight equal to or less than 1 kg (2.2 lb)	
4 800 or less	13
4 801 to 24 000	21
24 001 to 48 000	29
48 001 to 84 000	48
84 001 to 144 000	84
144 001 to 240 000	126
Over 240 000	200
Net weight greater than 1 kg (2.2 lb) but not more than 4.5 kg (10 lb)	
2 400 or less	13

2 401 to 15 000	21
15 001 to 24 000	29
24 001 to 42 000	48
42 001 to 72, 000	84
72 001 to 120 000	126
Over 120 000	200
Net weight greater than 4.5 kg (10 lb)	
600 or less	13
601 to 2 000	21
2 001 to 7 200	29
7 201 to 15 000	48
15 001 to 24 000	84
24 001 to 42 000	126
Over 42 000	200
[1] *n* = number of primary containers in sample.	

Bibliography

[1] United States Standards for Grades of Tomato Juice, Effective date July 22, 1985

[2] CODEX STAN 247:2005, General Standard for Fruit Juices and Nectars

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

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

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

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

[7] European Union: http://ec.europa.eu/sanco_pesticides/public

