EDICT
OF
GOVERNMENT

In order to promote public education and public safety, equal justice for all, a better informed citizenry, the rule of law, world trade and world peace, this legal document is hereby made available on a noncommercial basis, as it is the right of all humans to know and speak the laws that govern them.

EAST AFRICAN STANDARD

Tomato products — Specification

Part 1:
Canned tomatoes
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.
Tomato products — Specification

Part 1:
Canned tomatoes

1 Scope

This Part 1 of EAS 66 prescribes the requirements for canned tomatoes.

2 Normative references

The following standards contain provisions, which, through reference in this text constitute provisions of this standard. All standards are subject to revision and parties to agreements based on this standard are encouraged to take steps to ensure the use of the most recent editions of the standard indicated below. Information on currently valid national and international standards may be obtained from the Partner States Bureaux of Standards Information and Documentation Centre.

EAS 38, Labelling of pre packed foods — Specification

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

EAS 217, Methods for the microbiological examination of foods

3 Definitions

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

3.1 canned tomatoes
product prepared from clean, ripe and sound tomatoes conforming to the characteristics of the fruit of Lycopersicum esculentum P. mill of red or reddish varieties, which are processed by heat before or after being sealed in a container. Water shall not be used as a packing medium. The tomatoes shall have had the stems and calyces removed and shall have been cored except where the internal core is insignificant as to affect texture and appearance. The tomatoes shall be in peeled or unpeeled form.

3.2 whole tomato
tomato of any size in which the contour is not materially altered by coring and trimming and shall not be cracked or split to the extent of having material loss of placenta
EAS 66-1: 2000

3.3 objectionable core material
internal core material of tough and fibrous texture

3.4 blemishes
areas of tomatoes that are abnormal and contrast strongly in colour and texture with the normal tomato tissue

3.5 extraneous plant materials
tomato leaves, stems, calyx, bracts and similar plant material

3.6 peeled tomatoes
tomatoes in which the skins have been removed

3.7 unpeeled tomatoes
tomatoes in which the skins are intact

4 Styles and types of pack

4.1 Canned tomatoes shall be in any of the following forms:

(i) whole;
(ii) whole and pieces;
(iii) pieces;
(iv) dices;
(v) slices; and
(vi) wedges.

4.2 Canned tomatoes shall be packed in any of the following forms:

(i) regular pack — with a liquid medium added, other than water;
(ii) solid pack — without any added liquid medium; and
(iii) flavoured or seasoned pack — with permitted vegetable ingredients such as onions, peppers and celery, not exceeding 10 % m/m of the product.
5 Essential compositional and quality requirements for canned tomatoes

5.1 General characteristics of canned tomatoes

5.1.1 Colour

Drained tomatoes shall have a normal red or reddish colour characteristics of tomatoes that have been properly prepared and processed. No artificial colouring matter shall be added to the product.

5.1.2 Flavour

Canned tomatoes shall have a normal flavour and shall be free from flavour foreign to the product. Canned tomatoes with special added ingredients shall have a flavour characteristic of that imparted by the tomatoes and the other substances used.

5.1.3 Wholeness

Canned tomatoes of 'whole' style shall consist of not less than 80 % m/m of drained tomatoes in whole units.

5.1.4 Defects

Canned tomatoes shall be free from objectionable core material, peels, dark specks or any other inedible plant material.

5.2 Requirements of the packaged media

5.2.1 Canned tomatoes may be packed in the following packing media:

a) **juice** — unconcentrated, undiluted liquid from ripe sound tomatoes;

b) **residual material** — liquid strained form of the residue from preparing tomatoes for canning;

c) **puree or pulp** — unconcentrated tomato juice; and

d) **paste** — highly concentrated tomato juice.

5.2.2 The packing media shall have a pH of 4.3 or lower.

5.2.3 Food grade calcium chloride, calcium sulphate, calcium citrate, mono calcium phosphate or a combination of any of these may be used as firming agents to condition the tomatoes.

The total quality of such conditioner shall not exceed 0.26 % of the weight of the finished product expressed as calcium ion content.

5.2.4 Salt, spices, flavourings and seasonings may be added. Salt content shall not exceed 0.6 % by mass of the finished product.

5.2.5 Permitted acidifying agents that may be used are acetic, citric, lactic, malic, and tartaric acids.
5.3 Fill of the container

5.3.1 Minimum fill

The product shall occupy a minimum fill of not less than 90% of the water holding capacity of the container. The water holding capacity of the container shall be the volume of distilled water at 20 °C which the sealed container shall hold when completely filled.

5.3.2 Drained weight

Drained weight of the contents shall be not less than 60% of the net weight of the container.

5.4 Limits for mineral impurities

When tested in accordance with relevant East African Standards, canned tomatoes shall not contain mineral impurities exceeding the levels indicated in Table 1.

<table>
<thead>
<tr>
<th>Type of impurity</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Arsenic (as As), max.</td>
<td>0.5 ppm</td>
</tr>
<tr>
<td>(ii) Lead (as Pb), max.</td>
<td>1.0 ppm</td>
</tr>
<tr>
<td>(iii) Copper (as Cu), max.</td>
<td>10 ppm</td>
</tr>
<tr>
<td>(iv) Zinc (as Zn), max.</td>
<td>20 ppm</td>
</tr>
<tr>
<td>(v) Tin (as Sn), max.</td>
<td>250 ppm</td>
</tr>
</tbody>
</table>

6 Hygiene

6.1 Canned tomatoes shall be prepared in premises built and maintained under the hygienic conditions stipulated in EAS 39.

6.2 The microbiological limits shall be as seen below.

6.2.1 Canned tomatoes shall be free from pathogenic organisms and shall comply with the microbiological limits indicated in Table 2, when determined by the methods of test stipulated in EAS 217.

<table>
<thead>
<tr>
<th>Type of micro-organism</th>
<th>Limits (number of counts), maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Total viable counts</td>
<td>10 per g</td>
</tr>
<tr>
<td>(ii) Yeasts and moulds</td>
<td>shall be absent</td>
</tr>
<tr>
<td>(iii) <em>Escherichia coli</em></td>
<td>shall be absent</td>
</tr>
<tr>
<td>(iv) Salmonella</td>
<td>shall be absent</td>
</tr>
</tbody>
</table>
6.2.2 **Howard count** — Canned tomatoes shall not contain mould filaments in excess of 40 \% positive fields.

7 Packaging and labelling

7.1 Packaging

Canned tomatoes shall be packed in plain cans or in cans with a food grade acid resistant lacquering material that shall not affect the quality of the product.

The interior of the can shall not show any black discolouration, rusting or pitting.

7.2 Labelling

Labelling of canned tomatoes shall be done in accordance with the requirements stipulated in EAS 38 and shall include the following information legibly printed on the label or embossed on the can:

(i) Name of the product;

(ii) Name and address of the manufacturer;

(iii) Net weight in grams;

(iv) List of ingredients;

(v) Date of manufacture;

(vi) 'Sell by … ' date; and

(vii) Instructions on usage 'Use immediately after opening the container'.