

CODEX STANDARD FOR TOMATO JUICE
PRESERVED EXCLUSIVELY BY PHYSICAL MEANS¹

CODEX STAN 49-1981

(World-wide Standard)

1. **DESCRIPTION**

Unfermented but fermentable juice, intended for direct consumption, obtained by a mechanical process from sound, ripe, red or reddish tomatoes (*Lycopersicon esculentum* L.) preserved exclusively by physical means, the juice being strained free from skins, seeds and other coarse parts of tomatoes, and from other hard substances and impurities.² The juice may have been concentrated and later reconstituted with water suitable for the purpose of maintaining the essential composition and quality factors of the juice.

2. **ESSENTIAL COMPOSITION AND QUALITY FACTORS**

2.1 Soluble Tomato Solids

The soluble tomato solids content of tomato juice, exclusive of added salt, shall be not less than 4.5% m/m determined by refractometer at 20 °C, uncorrected for acidity and read as °Brix on the International Sucrose Scales.

2.2 Salt

The addition of salt is permitted.

2.3 Organoleptic Properties

The product shall have the characteristic colour, aroma and flavour of tomato juice.

2.4 Use of Concentrates

The addition of concentrate to juice is permitted. Only concentrate from tomato (*Lycopersicon esculentum* L.) may be used.

¹ Formerly CAC/RS 49-1971.

² For the purpose of this standard and at this time preservation by physical means does not include ionizing radiation.

3. CONTAMINANTS

| | <u>Maximum level</u> |
|--|------------------------|
| 3.1 Arsenic (As) mg/kg | 0.2 |
| 3.2 Lead (Pb) | 0.3 mg/kg ¹ |
| 3.3 Copper (Cu) | 5 mg/kg |
| 3.4 Zinc (Zn) | 5 mg/kg |
| 3.5 Iron (Fe) | 15 mg/kg |
| 3.6 Tin (Sn) | 250 mg/kg ² |
| 3.7 Sum of copper, zinc and iron | 20 mg/kg |
| 3.8 Sulphur dioxide | 10 mg/kg |
| 3.9 Mineral impurities insoluble in 10% hydrochloric acid shall not exceed 25 mg/kg. | |

4. HYGIENE

4.1 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the Recommended International Code of Hygienic Practice for Canned Fruits and Vegetable Products (Ref. No. CAC/RCP 2-1969) and the General Principles of Food Hygiene (Ref. No. CAC/RCP 1-1969, Rev. 2-1985) recommended by the Codex Alimentarius Commission.

4.2 When tested by appropriate methods of sampling and examination, the product:

- (a) shall be free from microorganisms capable of development under normal conditions of storage; and
- (b) shall not contain any substances originating from microorganisms in amounts which may represent a hazard to health.

4.3 The product shall not contain mould filaments in a quantity indicative of unsuitable raw materials or unsanitary processing lines. A guide for determining compliance with these requirements would be a mould count, as determined by the Howard Method (see AOAC (1970) 40.085 - Molds (25); Official Final Action and

¹ These limits remain under review.

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40.002 (m)), not in excess of 30% positive fields.

5. **WEIGHTS AND MEASURES**

5.1 **Fill of Container**

5.1.1 Minimum Fill

The tomato juice shall occupy not less than 90% v/v of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20 °C which the sealed container will hold when completely filled.

6. **MARKING OR LABELLING**

6.1 **Containers Destined for the Final Consumer**

In addition to the requirements of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Codex Alimentarius, Volume 1), the following specific provisions apply:

6.1.1 The Name of the Food

The name of the product shall be "tomato juice".

6.1.2 List of Ingredients

6.1.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion, except that water added for reconstitution of juice according to Section 1 need not be declared.

6.1.2.2 In the case of tomato juice made from concentrate the fact of reconstitution shall be declared in the list of ingredients as follows: "tomato juice made from concentrate" or "reconstituted tomato juice" or "tomato juice made from concentrated tomato juice". If there are no ingredients to be listed in accordance with Section 6.1.2.1, the expression "tomato juice made from concentrate" or "reconstituted tomato juice" or "tomato juice made from concentrated tomato juice" shall appear on the label.

6.1.3 Additional Requirements

The following additional specific provisions shall apply:

6.1.3.1 No fruit or fruit juice may be represented pictorially on the label except tomatoes or tomato juice.

6.1.3.2 Where tomato juice requires to be kept under conditions of refrigeration, there shall be information for keeping and, if necessary, thawing of the product.

6.1.4 Date Marking

The "date of minimum durability" shall be declared by the month and year in uncoded numerical sequence except that for products with a shelf-life of more than 18 months the year will suffice.

6.1.5 Storage Instructions

Where practicable, storage instructions should be in close proximity to the date marking.

6.2 Non-Retail Containers

In the case of tomato juice in bulk, the information required by Section 6.1 shall either be given on the container or in accompanying documents except that the name of the product and the name and address of the manufacturer or packer should appear on the container. However, the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying document.

7. METHODS OF ANALYSIS AND SAMPLING

See Volume 13 of the *Codex Alimentarius*.