

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD
HEALTH
ORGANIZATION



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Agenda Item 4(a)

CX/PFV 04/22/4 - Add 1
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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES

22nd Session,

Washington, DC metro area, U.S.A., 27 September – 1 October 2004

PROPOSED DRAFT REVISED CODEX STANDARD FOR PROCESSED TOMATO CONCENTRATES

**Comments have been received from
Egypt, France, Iran, Malaysia, United States, Venezuela, and the World Processing Tomato Council.**

EGYPT

We would like to submit our suggestions for the proposed values, these will be

A – ‘Tomato Puree’: Tomato Concentrate that contains no less than 10%, but less than 18% on natural tomato soluble solids.

B - ‘Tomato Paste’: Tomato Concentrate that contains at least 28% of natural tomato soluble solids

C – ‘concentration’: Tomato Concentrate that contains no less than 22% but less than 28% on natural tomato soluble solids.

*Item 3.2.6 (Mould count) needs more clarification as it has been shown in our surveys that the maximum count in such product have not to exceed 10 cels/gm food.

FRANCE

1 – Scope: Wording should be modified as requested by the Codex Secretariat in order to comply with other Codex standards.

2 – Description: To avoid any confusion, paragraphs 2.1.2, 2.1.3, and 2.1.4 should specify that salt is systematically excluded from the soluble solids content (i.e. Regulation 1764/86 – Annex – Paragraph 5).

3 – Essential Composition and Quality Factors:

- 3.2.4. Defects: Item e) “excluding salt” should be added, and Item f) should be deleted; the list of defects is always limited.
- Many essential quality criteria for tomato concentrates, specified in Regulation 1764/86, have not been retained. These are: titratable acidity and volatile acidity.

4 – Additives: Additives permitted for tomato concentrates by Guideline 95/2 should be included here.

IRAN

2.1.2 Given the common technological process involved in the production of tomato paste in small packages (under 100 gr) the minimum soluble solids 18 is recommended.

As the pH value is an important criteria in tomato puree and tomato paste, setting the maximum pH 4.3 is required.

3.2.6 The title shall be “ Howard mould count “ and the average mould count shall be modified as “ the average fields containing mould filaments “

8.3 The percentage of salt shall be declared on the label.

MALAYSIA

1. SCOPE

Malaysia agrees with the recommendation of the Codex Secretariat to use the standardized language in the Scope. Malaysia proposes to replace Section 1 Scope with the following text:

“This Standard applies to processed tomato concentrates as defined in Section 2 below and offered for direct consumption including for catering purposes or for repacking if required. It does not apply to the product when indicated as being intended for further processing”

2. DESCRIPTION

2.1.1 Processed tomato concentrate is the product:

Malaysia notes that there is an editorial error in the scientific name of tomato. It should read as:

“*Lycopersicum esculentum* P. Mill ”

2.1.4

Malaysia proposes to add the words ‘*Tomato Concentrate*’ as the title in Section 2.1.4. The section is to read as:

2.1.4. “*Tomato Concentrate*” – *The concentration shall be 7% or more natural tomato soluble solids, but not dehydrated to a dry powder or flake form*”.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1.2 Optional Ingredients

(b) Malaysia proposes to delete the whole sentence in section 3.1.2 (b) and to replace it with the sentence from CX/PFV 02/9 – Proposed Draft Revised Codex Standard for Processed Tomato Concentrates. The sentence should read as follows:

“(b) *Spices, flavoring, and dried aromatic plants (such as basil leaf or onions, etc) but not sugars or other sweeteners*”.

3.1.2 Optional Ingredients

(c) Malaysia proposes to delete the word *Water*-and to replace it with the word ‘*Potable water.*’

3.2 QUALITY CRITERIA

Malaysia is of the view that this paragraph should specify the natural tomato soluble solids for:

- i) *Tomato Puree*
- ii) *Tomato Paste*
- iii) *Tomato Concentrate*

3.2.1 Colour

Malaysia proposes to delete the whole sentence and replace with the sentence from CX/PFV 02/9 - Proposed Draft Revised Codex Standard for Processed Tomato Concentrates. The sentence to read as follows:

“The product when diluted with water to reach approximately 8% natural tomato soluble solids shall have a fairly good red colour, free from abnormal colours for the product”.

3.2.2 Texture

Malaysia proposes to delete the whole sentence and replace with the sentence from CX/PFV 02/9 - Proposed Draft Revised Codex Standard for Processed Tomato Concentrates. The sentence will read as follows:

“The concentrated product shall have a homogenous, evenly divided texture indicative of good manufacturing practices”.

3.2.4 Defects

Malaysia proposes to move the whole **Section 3.2.4- Defects to Section 3.2.5**. The previous **Section 3.2.4** is for pH. The sentence should read as follows:

3.2.4 pH

The pH should be less than 4.5.

3.2.5 Defects

Malaysia is of the view that **Section 3.2.6 - Mould Count** should be changed to **subsection 3.2.5.1 – Mould Count** under **Section 3.2.5 – Defects**. The Sub-section will read as follows:

“3.2.5.1 Mould Count”

Malaysia proposes to delete the whole sentence and replace it with the sentence from CX/PFV 02/9 - Proposed Draft Revised Codex Standard for Processed Tomato Concentrates. The sentence should read as follows:

“3.2.5.1 Mould Count (in accordance with AOAC Method 965.41)

The product shall be considered nonconforming if the average mould count in 6 subsamples is 45% or more and the mould counts of all the subsamples are more than 40%”.

3.2.6.

The previous **Section 3.2.5 - Lactic Acid** is now changed to **Section 3.2.6. – Lactic acid**

3.2.7 Classification of “Defectives”

Malaysia proposes the deletion of the numbers ‘ ~~3.2.5~~’ and replaces it with ‘ 3.2.6 ‘, and also the deletion of the word ‘...2.1.2 - 2.1.4, ~~and~~/or one or more...’ The sentence should read as follows:

“A container that fails to meet the natural tomato soluble solids requirements, as set out in Sections 2.1.2 - 2.1.4, ~~and~~/or one or more of the applicable quality requirements, as set out in Sections 3.2.1 through ~~3.2.5~~ 3.2.6 should be considered a “defective”.

3.2.8 Lot Acceptance

Malaysia notes that a typographical error, Section 3.5 should be replaced with Section 3.2. It should read as:

“A lot should be in Section ~~3.5~~ 3.2 when:”

Malaysia feels that the sentence ‘ *These acceptance criteria apply to the container having a net weight equal to or lower than 4.5 kg*’ should be deleted because the quality requirement should be applied to all sizes of containers.

8. LABELLING

8.4

Malaysia proposes to add in **Section 8.4 with** the sentence from CX/PFV 02/9 - Proposed Draft Revised Codex Standard for Processed Tomato Concentrates. This Section is to read:

“Section 8.4 A declaration, as part of the name or in close proximity to the name, shall be made of any seasoning or flavouring which characterizes this product, e.g., “With X”, when appropriate”.

UNITED STATES

3. Essential Composition and Quality Factors

3. 2.6. Mould Count.

The tolerance for Mould Count differs among various countries legislation, standards of identity and directives as follows;

European Union Directive limits the Mould Count at 70%

U.S. Standard of Identity limits the Mould Count at 45% and

Canada Standards of identity limits the Mould Count at 50%;

Differences in tolerances for Mould Count are attributed to processing practice and legislation. The differences in legislation can’t be resolved at the CCPFV level. Therefore the United States supports the compromise wording agreed to by the Working Group:

“Mould Count for Processed Tomato Concentrates to be set according to the national legislation of importing countries” or

The deletion of this section on Mould Count from the standard.

If the wording is accepted the Section should read:

3.2.6. Mould Count

The product should be considered nonconforming if the average mould count in six samples exceeds the tolerance set by the legislation on importing country.

Food Additives

Recommend that GSFA food category 4.2.2.4 be referenced for tomato paste and food category 04.2.2.5 be referenced for tomato purees.

US can agree with the proposed food additive provisions.

VENEZUELA

2. DESCRIPTION

2.1. PRODUCT DEFINITION

2.1.3. "Tomato Paste" - Tomato concentrate that contains 24 % (**25 %**) or more natural tomato soluble solids. (Venezuelan Standard, COVENIN 74-79, "*Pasta de tomate*" [Tomato Paste].)

In Venezuela, tomato paste is classified according to the natural tomato soluble solids content, salt excluded, as follows:

2.1.3.1. Single Strength Tomato Paste: contains a minimum of 25 % natural tomato soluble solids.

2.1.3.2. Double Concentrated Tomato Paste: contains a minimum of 28 % natural tomato soluble solids.

2.1.3.3. Triple Concentrated Tomato Paste: contains a minimum of 33 % natural tomato soluble solids.

2.1.3.4. Extra Concentrated Tomato Paste: contains a minimum of 39 % natural tomato soluble solids.

(Source: Venezuelan Standard, COVENIN 74-79, "*Pasta de tomate*" [Tomato Paste].)

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1.2 Optional Ingredients

- (a) Salt (sodium chloride);
- (b) Spices and aromatic plants (such as basil leaf, etc.) and their natural extracts;
- (c) Lemon juice (single strength or concentrated) used as an acidulant; and
- (d) Water (to adjust final composition), limited by minimum concentration level of 7 % and by Good Manufacturing Practice (GMP).

In Venezuela the addition of sugars, sweeteners, colorants, thickeners, preserving agents, and stabilizers is not permitted (Venezuelan Standard, COVENIN 74-79, "*Pasta de tomate*" [Tomato Paste].)

3.2.6 Mould Count

3.2.7 The product shall be considered nonconforming if the average mould count in 6 samples is more than 70 %. **Mold hyphae: a maximum of 20 % positive fields (Venezuelan Standard, COVENIN 2427:87, “Determinación de hifas de mohos. Cámara de Howard” [Mold Hyphae Determination. Howard Mold Counting Chamber]) and be in compliance with commercial sterilization requirements. (Venezuelan Standard, COVENIN 2278:85, “Alimentos comercialmente estériles. Evaluación de esterilidad comercial” [Commercially Sterilized Foods. Commercial Sterilization Evaluation].)**

4. FOOD ADDITIVES

4.1 Acidity Regulators

Any acidity regulator listed in Table 3 of the Codex General Standard for Food Additives or listed in food category 04.2.2.4 Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds, in Tables 1 and 2 of the Codex General Standard for Food Additives. **All these ingredients shall be used according to the minimum quantities required to maintain a pH no greater than 4.2.**

5. CONTAMINANTS

5.1 The products covered by the provisions of this Standard shall comply with those maximum levels for contaminants established by the Codex Alimentarius Commission for these products.

Venezuelan Standard, COVENIN 74-79, “Pasta de tomate” [Tomato Paste]

Contaminants

CONTAMINANT	Limit (max) (mg/Kg)	TESTING METHOD
Copper	5.0	COVENIN 1255
Lead	1.0	COVENIN 1335
Arsenic	0.2	COVENIN 948
Tin	125.0	COVENIN 1256
Zinc	5.0	COVENIN 1333
Mercury	0.05	COVENIN 1407

8. LABELLING

8.2. NAME OF THE PRODUCT

8.2.1. The name of the product shall be:

(a) “Tomato Paste”, if the food contains not less than 24 % (**25 %**) natural tomato soluble solids, and it should be specified as one of the following:

Single Strength Tomato Paste: contains a minimum of 25 % natural tomato soluble solids.

Double Concentrated Tomato Paste: contains a minimum of 28 % natural tomato soluble solids.

Triple Concentrated Tomato Paste: contains a minimum of 33 % natural tomato soluble solids.

Extra Concentrated Tomato Paste: contains a minimum of 39 % natural tomato soluble solids.

(Source: Venezuelan Standard, COVENIN 74-79, “*Pasta de tomate*” [Tomato Paste].)

WORLD PROCESSING TOMATO COUNCIL

A/ **Item 3.2.6 Mould Count** The reference to Howard Mould Count Method HMC in **Quality Criteria** should be dropped. The HMC method is old, inaccurate and extremely subjective as it all depends on the training level of the person reading it. Moreover, high mould contents do not pose any health risks for the consumer.

It would be desirable that the CCPFV conducts a study on alternative methods for measuring the mould content in tomato products which could be introduced in the standards (ergosterol or lactic acid assay).

B/ **Item 4.1 Acidity Regulators** –Add the sentence “usage and level limited by GMP”.

C/ **Item 5.1 (heavy metals)** and **Item 5.2 Pesticide residues(...)** Reintroduce the reference to the concentration effect in the measure.

The following sentence should be added: Value of maximum levels of pesticides must comply with natural total tomato solids content, with a reference value of fresh fruit of 4,5%

ANALYTICAL METHODS

In both standards, the analytical methods have not been defined. The WPTC suggests to the Codex Alimentarius Committee that institutes which are well known by the industry for their specific skills in the analysis of tomato products (SSICA, UC Davis, ...) cooperate to propose analytical methods of reference. The expenses for this should be paid for by the member States.