

# codex alimentarius commission

FOOD AND AGRICULTURE  
ORGANIZATION  
OF THE UNITED NATIONS

WORLD HEALTH  
ORGANIZATION

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**TO:** Codex Contact Points  
Interested International Organizations

**FROM:** Secretary, Joint FAO/WHO Food Standards Programme  
FAO, 00100 Rome, Italy

**SUBJECT:** **Proposed Draft Revised Regional Standard for Vinegar**

**DEADLINE:** **30 July 2000**

**COMMENTS:**

To:	Secretary	Copy to:
	Joint FAO/WHO Food Standards Programme – FAO	Dr. Felipe Mittelbrunn Garcia, Comisión Interministerial para la Ordenación Alimentaria, Ministerio de Sanidad y Consumo, Paseo del Prado 18-20, 287071 Madrid, Spain
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## BACKGROUND

Following the recommendations of the Commission concerning the conversion of regional standards into world-wide standards, the Committee on Processed Fruits and Vegetables considered the conversion of the Regional Standard (Europe) for Vinegar at its 19th Session (1998) The Committee agreed that it would not be appropriate to undertake the conversion of this regional standard as a world-wide one, especially in view of trade patterns and significant regional differences. It recommended that the standard be referred to the Coordinating Committee for Europe for consideration of how to align it with the new format of Codex standards and to update methods of analysis (ALINORM 99/27, para. 72).

The 21<sup>st</sup> Session of the Coordinating Committee for Europe took note of this recommendation and agreed to undertake the revision of the standard as new work. This proposal was approved by the 23<sup>rd</sup> Session of the Commission (ALINORM 99/37, para. 210, Appendix VIII).

The Proposed Draft Revised Standard for Vinegar, based on the current Standard is hereby circulated for government comments at Step 3 in the attached Annex. The sections on Hygiene and Food Additives have been updated to take into account the latest revisions of the Procedural Manual (11<sup>th</sup> Edition, Food Hygiene, p.95 ) and the adopted sections of the General Standard on Food Additives.

Governments and international organizations wishing to submit comments should do so in writing to the above addresses, preferably by e-mail, **before 30 July 2000**. This deadline should allow the incorporation of the comments received into a revised version of the Proposed Draft, in order to facilitate discussions in the Committee.

**PROPOSED DRAFT REVISED REGIONAL STANDARD FOR VINEGAR**  
**(At Step 3 of the Procedure)**  
**CODEX STAN 162-1987**

**1. SCOPE**

This standard applies to products as defined in Section 2 below.

**2. DESCRIPTION**

2.1 *Vinegar* is a liquid, fit for human consumption, produced exclusively from suitable products containing starch and/or sugars by the process of double fermentation, first alcoholic and then acetous. Vinegar contains acetic acid as specified in Section 3.3. Vinegar may contain optional ingredients in accordance with Section 3.2.

2.1.1 *Wine Vinegar* is a vinegar obtained from wine by acetous fermentation and in which the maximum level for volatile acids in the raw materials may be exceeded.

2.1.2 *Fruit (wine) vinegar, Berry (wine) vinegar, cider vinegar* are vinegars obtained by acetous fermentation from wine of fruit, wine of berries or cider, and in which the maximum level for volatile acids in the raw materials may be exceeded. These vinegars may also be produced from fruit by the process defined in Section 2.1.

2.1.3 *Spirit vinegar* is a vinegar obtained by acetous fermentation from distilled alcohol.

2.1.4 *Grain vinegar* is a vinegar obtained without intermediate distillation by the process defined in Section 2.1 from any cereal grain, the starch of which has been converted to sugars by a process other than solely by the diastase of malted barley.

2.1.5 *Malt vinegar* is a vinegar obtained without intermediate distillation by the process defined in Section 2.1 from malted barley, with or without the addition of cereal grains, the starch of which has been converted to sugars solely by the diastase of the malted barley.

2.1.6 *Distilled malt vinegar* is a vinegar obtained by the distillation of malt vinegar, as defined in Section 2.1.5 above, under reduced pressure. It contains only the volatile constituents of the malt vinegar from which it is derived.

2.1.7 *Whey vinegar* is a vinegar obtained without intermediate distillation by the process defined in Section 2.1 from whey.

2.1.1.8 *Honey vinegar* is a vinegar obtained without intermediate distillation by the process defined in Section 2.1 from honey.

**3. ESSENTIAL COMPOSITION AND QUALITY CRITERIA**

**3.1 RAW MATERIALS**

3.1.1 The raw materials for vinegar are:

- (i) products of agricultural origin containing starch and/or sugars including but not limited to: fruit, berries, cereal grains, malted barley, whey, honey;
- (ii) wine of grapes, fruit or berries, cider;
- (iii) distilled alcohol of agricultural origin; or
- (iv) distilled alcohol of silvicultural origin.

**3.2 OPTIONAL INGREDIENTS**

The following ingredients may be added to vinegar in amounts necessary to impart a distinctive flavour;

- (i) plants, in particular herbs, spices and fruit, or their parts or extracts suitable for flavouring;
- (ii) whey;
- (iii) fruit juices or their equivalent of concentrated fruit juices;
- (iv) sugars as defined in the relevant Codex Standards (*Codex Alimentarius*, Volume 11);
- (v) honey as defined in the Codex Standard for Honey (CODEX STAN 12-1981, *Codex Alimentarius*, Volume 11); and
- (vi) food grade salt as defined in the Codex Standard for Food Grade Salt (CODEX STAN 150-1985, *Codex Alimentarius*, Volume 1A).

### 3.3 COMPOSITION

#### 3.3.1 Total Acid Content

Total Acid	
Wine vinegar	not less than 60 g/litre (calculated as acetic acid) and not more than the amount detainable through the use of biological fermentation
Vinegars other than wine vinegar	not less than 50 g/litre (calculated as acetic acid) and not more than the amount detainable through the use of biological fermentation

#### 3.3.2 Residual Alcohol Content

Residual Alcohol (v/v)	
Wine vinegar	not more than 0.5%
Vinegars other than wine vinegar	not more than 1%

#### 3.3.3 Soluble Solids

Soluble Solids (exclusive of added sugars or salt)	
Wine vinegar	not less than 1.3 g/litre-1% acetic acid
Fruit (wine) vinegar, berry (wine) vinegar and cider vinegar	not less than 2.0 g/litre-1% acetic acid

#### 3.3.4 OTHER QUALITY CHARACTERISTICS

Sum of Copper (Cu) and Zinc (Zn) <sup>1</sup>	10 mg/kg
Iron (Fe)	10 mg/kg

### 4. FOOD ADDITIVES

Only those additives listed below may be used and only within the limits specified.

No.	Name of food additive	Maximum Level
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<sup>1</sup> Copper, Zinc and Iron have been transferred from the Contaminants Section in conformity with the recommendations of the Committee on Food Additives and Contaminants.

#### 4.1 ANTIOXIDANT

220	Sulphur dioxide	70 mg/kg
300	L-ascorbic acid	400 mg/kg

#### 4.2 COLOUR

150a	Caramel I - plain	GMP
150d	Caramel IV - ammonium sulphite process	GMP
150c	Caramel III - ammonia process	1 g/kg

#### 4.3 FLAVOUR ENHANCERS (for vinegars other than wine vinegar)

621	Monosodium glutamate	5 g/kg
622	Monopotassium glutamate	5 g/kg
623	Calcium glutamate	5 g/kg

#### 4.4 STABILIZER

1201	Polyninylpyrrolidone	40 mg/kg
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#### 4.5 FLAVOURS

Natural flavours and natural flavouring substances as defined for the purpose of the Codex Alimentarius (General Requirements for Natural Flavourings, Codex Alimentarius, Volume 1).

#### 4.5 PROCESSING AIDS

4.5.1 Nutrients for *Acetobacter* (such as yeast extracts and autolysates and amino-acids) and nutrient salts.

4.5.2 Clarifying and filtering agents as approved by the Codex Alimentarius Commission and used in accordance with Good Manufacturing Practice.

### 5. CONTAMINANTS

#### Maximum Levels

5.1	Arsenic (As)	1 mg/kg
5.2	Lead (Pb)	1 mg/kg

### 6. HYGIENE

6.1 It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice - General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 3 - 1997), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of practice, in particular the Code of Hygienic Practice for Egg Products (CAC/RCP 15- 1976).

6.2 The products should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

### 7. LABELLING

In addition to the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, (Rev. 3-1999), Codex Alimentarius Volume 1 ), the following provisions apply:

## 7.1 THE NAME OF THE FOOD

7.1.1 A product manufactured from only one raw material shall be denominated "x vinegar" where "x" is the name of the raw material used.

7.1.2 A product manufactured from more than one raw material shall be denominated "y vinegar" where "y" constitutes a complete list of the raw materials used in descending order of proportion.

7.1.3 The content of total acid shall be declared in close proximity to the name of the food by the term "x%" where "x" is the minimum total acid content in g/100 ml calculated as acetic acid to the nearest whole number.

7.1.4 Where an ingredient has been added in accordance with sub-sections 3.2 and/or 4.4 which imparts to the vinegar the distinctive flavour of the ingredient or ingredients, the name shall be accompanied by an appropriate descriptive term.

## 7.2 LABELLING OF NON-RETAIL CONTAINERS

Information on Sections 4.1 to 4.8 of the General Standard for the Labelling of Prepackaged Foods shall be given either on the container or in accompanying documents, except that the name of the food, lot identification and the name and address of the manufacturer or packer shall appear on the container. However, lot identification and 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 documents.

## 8. METHODS OF ANALYSIS AND SAMPLING

Acids, total (expressed as CH <sub>3</sub> COOH)	AOAC 930.35J	Titrimetry	I
Alcohol, residual	AOAC 942.06	Pycnometry	I
Alcohol, residual	OIV Method A 2, 1990	Pycnometry	III
Arsenic	AOAC 952.13 (Codex general method)	Colorimetry (diethyldithiocarbamate)	II
Copper	AOAC 971.20 (Codex general method)	Atomic absorption spectrophotometry	II
Iron	IFJU Method No 15, 1964	Photometry	IV
Lead	AOAC 972.25 (Codex general method)	Atomic absorption spectrophotometry	II
Soluble solids	AOAC 930.35C	Gravimetry	I
Sulphur dioxide	AOAC 990.28 (Codex general method)	Optimized Monier-Williams method	II
Sulphur dioxide	OIV Method A 17, 1990	Titrimetry	III
Sulphur dioxide	AOAC 990.29 (Codex general method)	Flow injection analysis	III
Sulphur dioxide	AOAC 990.31 (Codex general method)	Ion exclusion chromatography	III
Zinc	AOAC 969.32 (Codex general method)	Atomic absorption spectrophotometry	II