

PAKISTAN STANDARD SPECIFICATION
FOR
SYNTHETIC VINEGAR
(1st Revision)



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0. FOREWORD

- 0.1 This Pakistan Standard was adopted by the Pakistan Standards & Quality Control Authority, Standards Development Centre, on **21-02-2018** after the draft finalized by the Food Additives Technical Committee had been approved by the National Standard Committee for Agriculture & Food Products.
- 0.2 This standard was formulation in PS:3602 in 1994 now the committee felt it to revise in the light of latest development in the Industries..
- 0.3 In the preparation of this standard the views of the consumers, manufacturers, food technologists and test authorities have been taken into consideration.
- 0.4 Vinegar is a natural fermented product known to be produced from suitable raw material of vegetable origin by alcoholic and acetous fermentation and is used (as flavouring agent, preservatives and acidity regulator). After acetic acid began to be manufactured by processes other than fermentation, dilute acetic acid of 4 to 5 percent (m/v) strength was marketed as a substitute for fermented vinegar. The characteristic flavour and aroma of fermented vinegar imported by the fermentation by products is absent in the artificial (version). Dilute acetic acid has now been accepted as a substitute for fermented vinegar in many countries.
- 0.5 The term vinegar has always been used to describe the fermented product. This is generally used with a prefix indicative of the raw material used for its production, for example: fruit vinegar PS:523. The term vinegar with no qualification is not sufficiently specific to indicate the nature of the product. Use of the word vinegar in connection with dilute acetic acid has been a subject of much controversy. It is generally accepted that the term (Synthetic) vinegar is sufficiently specific to indicate (and interpret the true) nature of the product. Therefore, this term has been used in this specification.

- 0.6 For the purpose of deciding whether a particular requirement of this standard is complied with the final value observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with PS:103 for Methods of Rounding Off Numerical Values, the number of significant places retained in the rounded off value shall be the same as that of the specified value in this standard.
- 0.7 All the ingredients preparation, processing, packaging storage and for transportation shall according to PS:3733 for Halaal Food Management System Requirement for any Organization in the Food Chain.

1. SCOPE

- 1.1 This specification prescribes the requirements, methods of sampling for Synthetic Vinegar intended for use in food.

2. DEFINITIONS

- 2.1 **Synthetic vinegar** : A substitute for vinegar and containing acetic acid which is not wholly the product of alcoholic and subsequent acetous fermentation.

3. REQUIREMENTS

3.1 **Composition**

Synthetic Vinegar shall consist of a dilute solution of acetic acid.

3.2 **Hygiene**

Synthetic vinegar shall be produced in premises built and maintained under hygienic conditions and in accordance with PS:1825 for Good Manufacturing Practice in Manufacturing Processing, Packing or Holding Human Food.

3.3 **Taste and odour.**

Synthetic Vinegar shall have the characteristic taste and odour of dilute acetic acid.

3.4 **Added colouring matter.**

Synthetic Vinegar shall be free from added colouring matter other than caramel.

3.5 Freedom from sedimentation

Synthetic Vinegar shall be free from sediments.

3.6 Acidity

Synthetic vinegar shall comply with the following requirement for total acidity.

The total acidity as acetic acid shall not be less than 4.0 percent (m/v).

3.7 Free from Mineral acids

Synthetic vinegar shall be free from any (mineral acids), and shall not exceed the limit for formic acid (100 mg/kg max.) organic acids are allowed to use within GMP limits.

3.8 Heavy Metals

Synthetic vinegar shall be free from any harmful ingredients injurious to health, and shall not exceed the limits for heavy metals given in Table – 1.

TABLE – 1, TOLERANCE LIMITS

SL. NO.	CONTAMINANT	REQUIREMENTS mg/kg
1.	Copper	10
2.	Zinc	10
3.	Arsenic	1
4.	Lead	1
5.	Iron	10

4. PACKAGING

Synthetic vinegar shall be packed in any suitable container which does not affect the quality of the product. Containers should be properly sealed.

5. MARKING

5.1 The following shall be marked legibly and indelibly on the label of the container :-

- a. Vinegar shall be distinctly labeled as 'SYNTHETIC' in block letters not smaller than brand and trade name or designation and shall state on the label prepared from acetic acid.
- b. Name and address of the manufacturer;
- c. Date of expiry
- d. Registered trade mark, if any.
- e. Net volume in milliliters; and
- f. Batch or Code Number
- g. This Pakistan Standard Number. Mark and Licence Number.
- h. Storage condition as appropriate to packing material (optional).

5.2 Marking and labeling shall be in accordance with PS:1485 (Labelling of Prepackaged Foods).

6. SAMPLING

6.1 Sampling in according with PS:523 for Fruit Vinegar (Sirka) shall apply.

7. METHODS OF TEST

7.1 The relevant testing method of ISO, CAC, PS and of other Internationally Organized standard method may be taken into account for analysis purpose.