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**Puu- ja köögiviljamahlad. Tiitritava happesuse määramine**

Fruit and vegetable juices - Determination of titratable acidity

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12147:2000 sisaldb Euroopa standardi EN 12147:1996 ingliskeelset teksti.  Standard on kinnitatud Eesti Standardikeskuse 19.09.2000 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.  Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kätesaadavaks tegemise kuupäev on 11.12.1996.  Standard on kätesaadav Eesti standardiorganisatsionist.	This Estonian standard EVS-EN 12147:2000 consists of the English text of the European standard EN 12147:1996.  This standard is ratified with the order of Estonian Centre for Standardisation dated 19.09.2000 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.  Date of Availability of the European standard text 11.12.1996.  The standard is available from Estonian standardisation organisation.
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**Võtmesõnad:** happesus, joogid, keemiline analüüs, määramine, puu- ja köögiviljamahlad, tiitrimine, toiduainetooted

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# **EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM**

**EN 12147**

December 1996

ICS 67.160.20

Descriptors: Juices, titration, acidity, testing.

## **English version**

### **Fruit and vegetable juices**

#### **Determination of titrable acidity**

Jus de fruits et de légumes – Détermination  
de l'acidité titrable

Frucht- und Gemüsesäfte – Bestimmung  
der titrierbaren Säure

This European Standard was approved by CEN on 1996-05-09.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**

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## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 174, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 1997, and conflicting national standards shall be withdrawn at the latest by June 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard : Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This European Standard specifies a method for the determination of the titratable acidity of fruit and vegetable juices and related products.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN ISO 3696:1995 Water for analytical laboratory use - Specification and test methods

ISO 5725:1986 Precision of test methods - Determination of repeatability and reproducibility for a standard test method by inter-laboratory tests

## 3 Definitions and symbols

### 3.1 Definitions

For the purposes of this standard the following definition applies :

**Titratable acidity** : A measure of the content of mineral and organic acids determined by titration, according to this standard.

### 3.2 Symbols

For the purposes of this standard the following symbol applies :

c substance concentration.

## 4 Principle

Potentiometric titration with standard volumetric sodium hydroxide solution to a pH-value of 8,1.

## 5 Reagents

Use only reagents of recognized analytical grade and only degassed water in accordance with at least grade 3 of EN ISO 3696:1995.

### 5.1 Sodium hydroxide, standard volumetric solution, c ( $\text{NaOH}$ ) = 0,25 mol/l.

### 5.2 Buffer solutions of suitable pH.