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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 15664-2009

Replacing GB/T 15664-1995

**Fruit and vegetable products -- Determination of formic acid
content -- Gravimetric method**

水果、蔬菜及其制品 甲酸含量的测定 重量法

(English Translation)

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Foreword

This standard is equivalent to international standards ISO 6638-1. 1985 "Determination of formic acid content of fruit and vegetable products - Part 1. Weight Law "(in English).

For ease of use, this standard made the following editorial changes.

--- Use the decimal symbol instead of decimal symbol " , " . " , " ;

--- Use the "standard" instead of "this International Standard";

--- Delete foreword international standards;

Order --- Chapter 3 reagent prepared according to the standard preparation of specifications;

--- Chapter 4 in the distillation unit of the components indicated in distillation apparatus under FIG.

This standard replaces GB/T 15664-1995 "Fruits, vegetables and products of formic acid content - Gravimetric method." this standard and GB/T 15664-1995 No technical modifications compared to only write the rules in accordance with GB/T 20001.4-2001 "Standard Part 4. Chemical analysis methods, "the original standard was editorial changes.

This standard by the National Standardization Technical Committee of Food Industry and focal points.

This standard by the Ministry of Agriculture, Food Quality Supervision and Testing Center (Wuhan) responsible for drafting.

1 Scope

This standard specifies a method for determining the weight of law in fruits, vegetables and their products in formic acid content.

This standard applies to fruits, vegetables and their products measured in formic acid content.

Principle 2

Formic acid in the sample is distilled absorbing barium carbonate (or calcium carbonate), formic acid barium (or calcium formate). Barium formate (or calcium formate) Quantitatively reduced to mercury chloride mercury chloride, and then calculate the acid content based on the quality of calomel.

3 Reagents

Unless otherwise indicated in the analysis using only analytical reagent, the water is distilled water or equivalent purity.

3.1

barium carbonate (BaCO_3) or calcium carbonate (CaCO_3).

3.2

tartaric acid ($\text{C}_4\text{H}_6\text{O}_6$).

3.3

Ethanol ($\text{CH}_3\text{CH}_2\text{OH}$).

3.4

ether (CH_3OCH_3).

3.5

mercuric chloride - NaCl mixture. Weigh 100g of mercuric chloride and 30g of sodium chloride dissolved in water and diluted to 1L.

3.6 500g/L sodium acetate solution.

3.7 10% hydrochloric acid solution.

4 Instrument

4.1

Analytical balance, a sense of the amount of 0.0002g.

4.2

distillation apparatus (see Figure 1).

4.3

Crucible filter, G4.

4.4

dryer.

4.5

oven, 100 °C ± 2 °C.

4.6

stirrer.

4.7

Erlenmeyer flasks, volume 500mL.

4.8

rapid quantitative filter paper, 15cm.

4.9

furnace.

4.10

evaporating dish, at least the volume of 300mL.

4.11

reflux condenser.

4.12

water bath.

GB/T 15664-2009/ISO 6638-1. 1985