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

GB/T 15684-2015

Replacing GB/T 15684-1995

Milled cereal products -- Determination of fat acidity

谷物碾磨制品 脂肪酸值的测定

(English Translation)

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Foreword

Accordance with the standards GB/T 1.1-2009, GB/T 20000.2-2009, rules GB/T 20001.4-2001 given draft.

This standard replaces GB/T 15684-1995 "cereal products of fatty acid value determination." Compared with GB/T 15684-1995, the main technical Surgery differences are as follows.

- By the sample weight 10g to 5g, 50mL extraction solvent consisting of anhydrous ethanol to 30mL95% ethanol;
- Information extracted from the oscillator to the rotating stirrer shaking 10min 1h, filtered extract to centrifugation;
- Titrate filtrate from 25mL to 20mL, 50mL without CO₂-free distilled water;
- Titrated with standard solution by the 0.01mol/LKOH95% ethanol solution 0.05mol/LNaOH95% ethanol solution was changed.

This standard uses the translation method identical with the international standard ISO 7305:1998 "Determination of grain milling products of fatty acid value." for ease of use, the standard ISO 7305:1998 made editorial changes.

Correspondence between the consistency of the standards of international documents and normative references of the following documents.

- GB/T 21305-2007 Cereals and cereal products - Determination of moisture conventional method (ISO 712:1998, IDT).

The standard proposed by the National Food Authority.

This standard by the National Grain and Oil Standardization Technical Committee (SAC/TC270) centralized.

This standard was drafted. Nanjing University of Finance and Economics of Food Science

and Engineering.

1 Scope

This standard specifies the method for determination of grain mill products of fatty acid value.

This standard applies to the durum wheat and milled to obtain flour and semolina, also applies to noodles, pasta and other flour products.

Note: This standard also applies to raw grain, corn flour and corn flour particles, as well as rye flour and oatmeal; but before expanding the use of, should be carried out more extensive real Test test chamber.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

Determination of ISO 712 Cereals and cereal products, the water content of the conventional method (Cerealsandcerealproducts-Determination ofmoisturecontent-Routinereferencemethod)

3 Terms and Definitions

The following terms and definitions apply to this document.

Fatty acid value fatacidity Determination of the amount of various fatty acids in accordance with the method specified in this standard are extracted, especially the amount of extracted various non-esterified fatty acids.

NOTE: fatty acid values \u200b\u200bm g/100g representation (in dollars KOH). You can also use mg/100g representation (with NaOH meter) (see Chapter 11).

Principle 4

At room temperature with various fatty acids dissolved in ethanol, and then centrifuged, the supernatant was titrated with NaOH, fatty acid value calculation, the result Represented by the amount of KOH consumed.

5 Reagents

The agents of the criteria used were of analytical grade, water is distilled or deionized water or equivalent purity.

5.1 95% ethanol.

5.2

standard titration solution. 0.05mol/LNaOH95% ethanol solution should be free of CO₂.

The solution should be calibrated before use concentration, as soon as possible after calibration.

The solution should be prepared at least five days in advance, packed in a brown glass bottle with a rubber stopper plugged. Solution should be colorless or pale yellow.

Goods such as ethanol does not meet the requirements, according to the following method ethanol purification and formulation NaOH ethanol solution. dissolve 5g ~ 10gNaOH in 1L ethanol was added 0.5g and aluminum scrap. After boiling under reflux for 1h, distilling the ethanol. The required amount of NaOH (for example, a given concentration to 2g/L) was dissolved in the distillate. To stand for 5 days with precipitation of insoluble Na₂CO₃, the supernatant was set aside.

5.3 1% phenolphthalein indicator solution. Weigh 1g phenolphthalein dissolved 100mL95% ethanol (5.1).