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

GB/T 22427.9-2008

Replacing GB/T 12090-1989

Starch and derived products -- Determination of acidity

淀粉及其衍生物酸度测定

(English Translation)

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Foreword

This standard replaces GB/T 12090-1989 "Determination of acidity of starch and its derivatives." this standard and GB/T 12090-1989 compared to the main changes are as follows.

- Standard name changed to "Determination of acidity of starch and its derivatives";
- This standard expanded the scope of application, canceled "does not apply to acidity does not exceed 12mL of starch and its derivatives" restrictions;
- Standardized testing methods. an increase of the blank sample acidity determination, eliminating the impact of distilled water on the sample acidity;
- Improve the standard format, according to the norms of the system of units of the International System;
- Added "8 experimental report." this standard is proposed and managed by the China Chamber of Commerce.

This standard was drafted. Commercial Standards Center of China Chamber of Commerce, Food Science Institute of Jiangnan University, China Starch Industry Association modified starch Professional Committee, Shandong Zhucheng Xingmao Corn Development Co., Ltd., Guangxi Wuming Anning Starch Co., Ltd. liability company.

1 Scope

This standard specifies the titration method for the determination of acidity of starch and its derivatives.

This standard applies to the determination of acidity of starch and its derivatives.

2 Terms and definitions

The following terms and definitions apply to this standard.

Titrate the volume of sodium hydroxide standard solution consumed by the sample emulsion.

3 Principle

Titrate the starch emulsion with sodium hydroxide standard until neutral.

4 Reagent

Analytical reagents and distilled water or equivalent purity water should be used.

4.1

sodium hydroxide standard solution. = 0.1mol/L, to be calibrated.

4.2

potassium hydrogen phthalate. reference reagent.

4.3

phenolphthalein indicator. 1g phenolphthalein dissolved in 100mL95% (volume fraction) of ethanol.

5 Instruments

5.1

Erlenmeyer flask. 250mL.

5.2

burette. capacity 10mL, 25mL.

5.3

Analytical Balance. Feel 0.1g.

5.4

Analytical Balance. Feel 0.0001g.

5.5

magnetic stirrer.

5.6

electric thermostat blast oven. Temperature can be controlled at $110\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$.

5.7

Dryer. There is a well-functioning desiccant and a thick perforated plate.

6.1 Sample Preparation

Samples should be fully mixed.

6.2 Weigh

Weigh the sample (6.1) 10g, accurate to 0.1g, into 250mL conical flask (5.1), add 100mL of distilled water, shaken and mixed Evenly.

6.3 Titration

Add 2 drops to 3 drops of phenolphthalein indicator (4.3) in a conical flask and stir on a magnetic stirrer (5.5).

Titration with calibrated sodium hydroxide standard solution (4.1), until the conical flask appears just pink, and do not fade within 30s, read Consumption of sodium hydroxide standard solution ml (? 1).