

ICS 67.180.20
CCS X 11



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

GB/T 22427.3-2008

Replacing GB/T 12088-1989

Starches, native or modified -- Determination of total fat content

淀粉总脂肪测定

(English Translation)

Issued on: October 19, 2008

Implemented on: March 1, 2009

Issued by: Standardization Administration of China

Table of Contents

Foreword
1 Scope
2 Normative references
3 Terms and Definitions
5 Reagents
6 Instruments

Foreword

This standard is identical with ISO 3947. 1977 "Determination of total fat starch" (in English), the content and structure of ISO 3947. 1977 Consistent, only made editorial changes.

This standard replaces GB/T 12088-1989 "Starch total fat determination." this standard and GB/T 12088-1989 compared to major changes are as follows.

- Standard name changed to "Starch total fat determination";
- Domestic petroleum ether boiling range specification is 30 °C ~ 60 °C, so this standard in petroleum ether boiling range defined as 30 °C ~ 60 °C;
- Improve the standard format, according to the International System of Units standardized units;
- Added "9 test report." this standard is proposed and managed by China General Chamber of Commerce.

This standard was drafted. Chinese Chamber of Commerce Business Standard centers, food, Jiangnan University, China Starch Industry Association modified starch professional committee.

1 Scope

This standard specifies the method for the determination of native starch, modified starch the total fat content of solvent extraction.

This standard applies to the total fat content of less than starch samples 1.5g/100g of.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

ISO 5808 starch derivatives and by-products can be extracted Determination of fat content

3 Terms and Definitions

The following terms and definitions apply to this standard.

The method according to this standard, the resulting residue. To represent the mass fraction.

Principle 4

Samples were boiled in hydrochloric acid by hydrolysis, the insoluble matter after the condensed cooling, separated by filtration and dried, then the solvent pumped through the proposed total fat.

5 Reagents

Use distilled water or equivalent purity.

5.1

solvent. shape - hexane or petroleum ether (boiling range of 30 °C ~ 60 °C) or carbon tetrachloride (CTC especially toxic solvent such should Caution). Such solvent is completely evaporated and the residue should not exceed 0.001g/100mL.

5.2

HCl. $\rho_{20} = 1.18\text{g/mL}$.

5.3

iodine. Ba = 0.05mol/L.

5.4

aqueous solution of methyl orange. Ba = 2g/L.

6 Instruments

Glassware should be connected.

6.1

extractor. Soxhlet extractor.

Extraction 6.2 flask. a sealable connected to the bottom extractor (6.1).

6.3

Disc Filter paper. Aperture 10 μ m, solvent-free (5.1) soluble substances.

6.4

Casing. suitable for extraction, a solvent-free (5.1) soluble substances.

6.5

cotton. free of solvent (5.1) soluble substances.

6.6

efficient water-cooled condenser snake. to seal the upper end of the extractor connector (6.1).

6.7

electric heating means. with a temperature controller.

Note: The extraction experiment was repeated several times each need to adjust the temperature.

GB/T 22427.3-2008/ISO 3947. 1977