

ICS 67.040

CCS X 04



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

GB/T 35867-2018

**Inspection of grain and oils -- Determination of phospholipids
content in lecithin -- High performance liquid chromatography
using a light-scattering detector**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method identical with ISO 11701..2009 "Edible vegetable oil HPLC Determination of Evaporative Light Scattering Detection

Phospholipids in the content of phospholipids. "

The documents of our country that are consistent with the corresponding international documents that are normative references in this standard are as follows.

Preparation of animal and vegetable fat samples (ISO 661..2003, IDT).

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

--- Change the standard name (in order to facilitate the existing standard series).

This standard proposed by the State Food Administration.

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

This standard was drafted. Wuhan Food Cosmetics Inspection Institute, Wuhan Product Quality Supervision, Inspection, Wuhan University of Light Industry.

1 Scope

This standard specifies the use of high performance liquid chromatography - evaporative light scattering detection quantitative determination of phospholipid content.

This standard applies to the crude oil lecithin, oil-free lecithin and lecithin extracted from plant oils.

As lysophosphatidylethanolamine, lysophosphatidylinositol, lysophosphatidic acid separation is not good, this standard does not apply to animal lecithin,

Ruminant lecithin and enzymatic lecithin.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

ISO 661 Animal and vegetable fats sample preparation
(Animalandvegetablefatsandoils-Preparationoftestsam-

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3 Terms and definitions

The following terms and definitions apply to this document.

3.1

One-component phospholipid contentofanindividualphospholipid

The N-acyl-phosphatidylethanolamine (N-acyl-PE), phosphatidylcholine (PC), phosphatidylethanol

Amine (PE), phosphatidylinositol (PI), phosphatidic acid (PA), lysophosphatidylcholine (LPC) mass fraction.

4 principle

Each phospholipid fraction was separated by a high performance liquid chromatograph equipped with a diol column, detected by an evaporative light scattering detector, and compared with a standard substance

Quantitative.

5 Reagents and materials

Warning - should strictly follow the rules for the use of toxic substances. Take effective measures to ensure the safety of organizations and individuals.

Unless otherwise specified, only analytical reagents are used.

5.2 n-Hexane. Chromatography pure.

Isopropyl alcohol. Chromatography pure.

Acetic acid. mass fraction $\geq 99.8\%$.

5.5 Triethylamine.

5.6 Mixed solvent. mixed solvent consists of 80 mL n-hexane (5.2) and 20 mL isopropanol (5.3) (n-hexane volume fraction