

ICS 67.040
CCS X 10



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

GB/T 5512-2008

Replacing GB/T 5512-1985

**Inspect of grain and oilseeds -- Determination of crude fat
content in grain**

粮油检验 粮食中粗脂肪含量测定

(English Translation)

Issued on: November 4, 2008

Implemented on: January 20, 2009

Issued by: Standardization Administration of China

Table of Contents

Foreword
1 Scope
2 Normative references
5 Soxhlet extraction
5.1 Reagents
5.2 Apparatus and appliances

Foreword

This standard is GB/T 5512-1985 "grain and oilseeds fat test assay" amendments.

This standard GB/T 5512-1985 The main technical differences are as follows.

- Modify the scope of the standard;
- Adjust the order in which parts of the text and editorial changes;
- Deleting the original standard in relation to the fuel;
- Increase warned principle, for sampling, fat extraction instrument method.

The standard proposed by the National Food Authority.

This standard by the National Standardization Technical Committee OILS.

This standard was drafted. State Administration of Grain Science Institute.

1 Scope

This standard specifies the principles of food in fat content determination, for sampling, and the soxhlet extraction method, three kinds of straight drip extraction method, extraction apparatus method Reagent assay methods, procedures, and results of calculations.

This method is applicable to the determination of the fat content of food.

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.

GB 5491 grain and oilseeds testing for sampling, and sample method Principle 3
Pulverized, dispersed and dried samples reflux extraction with an organic solvent, the sample is solvent extraction of the fat out of the recovered solvent the resulting residue is fat.

4 for sampling

For sampling, and sample execution according to GB 5491.

5.1 Reagents

Anhydrous ether. AR.

NOTE: You can not replace the ether with petroleum ether, because it can not dissolve all plant lipids.

Warning. The solvent should be stored in line with safety regulations solvent or solvent cabinet room in a metal container. Extremely flammable ether and hexane. Enter Lab for analysis operation can not have open flames. The operator should avoid inhalation of solvent vapors. It should be equipped with explosion-proof lighting, wiring and fan and a solvent is used for the operation of the ventilation hood. Ether there with prolonged storage produce shock-sensitive, explosive peroxides chemotaxis Potential. When you open a new storage container is individually checked ether peroxides. A few months unused ether again should be the use of peroxide Was checked. Do not use ether containing peroxide. Ether containing peroxide should be treated as hazardous substances. It is also possible Carried out with ether stabilization process. The electrical equipment on the ground, kept in a suitable working position. Follow the manufacturer on all extraction Equipment installation, operation and safety recommendations. Confirm the cup into a dry extract all Front End solvent completely evaporated, in order to avoid fire or explosion.

5.2 Apparatus and appliances

5.2.1

Analytical Balance. dividing the value of 0.1mg.

5.2.2

electric oven.

5.2.3

electric heated water bath.

5.2.4

grinder, mortar.

5.2.5

with color gel dryer.

5.2.6

filter cartridge.

NOTE: If no backup filter paper tube, it is preferable length 28cm, 17cm wide paper, the test tube with a diameter of 2cm, along the long side of paper rolled into a cylindrical shape, drawn tubes to paper at half height of the cylinder, flattened evacuated part, folded over to make it close to the outer tube, to live with skim line is, the lower knuckle fold up, pressed into a circular base, Extraction tube Serve diameter 2cm, height of about 7.5cm of paper tube.