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CCS X 04



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

GB/T 5533-2008

Replacing GB/T 5533-1985

**Inspection of grain and oils -- Determination of soap content in
vegetable oils**

粮油检验 植物油脂含皂量的测定

(English Translation)

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Foreword

This revised standard adopts the American Oil Chemical Society (AOCS) standard AOCSCC17-95 "fat content in soap titration" (English Chinese Version).

This standard AOCSCC17-95 main technical differences.

- Modify the definition of soap-containing volume;
- In order to facilitate titration "150mm x 40mm stoppered test tube" to "250mL conical flask with stopper";
- Modify the result of the calculation formula and method of expression.

This standard replaces GB/T 5533-1985 "Inspection of vegetable oils containing soap quantity determination." this standard and GB/T 5533-1985 compared to the main changes are as follows.

- The scope changed to "applicable to refined vegetable oils and fats";
- The sample is dissolved reagent "petroleum ether" to "aqueous acetone";
- The sample was weighed by the amount of "10g" changed to "40g";
- The "0.02N solution of sulfuric acid" was changed to "0.01mol/L hydrochloric acid solution";
- The "0.2% methyl red ethanol solution" was changed to "1% bromophenol blue solution";
- The indicator is added to the aqueous acetone, aqueous acetone and adjusted to neutral;
- Increasing the blank test requirements;
- Test will allow double the difference "does not exceed 0.02%" to "not more than 0.01%." the standard proposed by the National Food Authority.

This standard by the National Standardization Technical Committee OILS.

1 Scope

This standard specifies the method for determination of soap containing vegetable fat content.

This standard applies to refined vegetable oils containing measured amount of soap.

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.

Preparation of GB/T 601 chemical reagent standard titration solution GB/T 6682 analytical laboratory use specifications and test methods (GB/T 6682-2008, ISO 3696. 1987, MOD) GB/T 15687 grease sample preparation (GB/T 15687-1995, eqv ISO 661. 1989)

3 Terms and Definitions

The following terms and definitions apply to this standard.

After the alkali refining of vegetable oils, the amount of oil remaining in the saponified.

Principle 4

After the sample is dissolved with an organic solvent, water was added saponification was dissolved, titrate with hydrochloric acid.

5 Reagents

Unless otherwise stated, use only analytical reagent.

5.1

Water. in line with GB/T 6682 provisions in the three water requirements.

Aqueous acetone 5.2. Measure 20mL of water was added to 980mL of acetone, shake. Immediately prior to analysis, each 100mL was added 0.5mL 1% bromophenol blue solution (5.5), a solution of hydrochloric acid solution (5.3) or sodium hydroxide solution (5.4) was adjusted to a yellow solution.

5.3

hydrochloric acid standard solution. Ba (HCl) = 0.01mol/L, according to the method GB/T 601 provisions formulated with the calibration.

5.4

Sodium hydroxide solution. Ba (NaOH) = 0.01mol/L, according to the method GB/T 601 provisions formulated with the calibration.

Indicator 5.5. 1% bromophenol blue solution.

6 Equipment

6.1

stoppered conical flask. 250mL.

6.2

microburette. 5mL or 10mL, dividing the value of 0.02mL.

6.3

cylinder. 50mL.

6.4

Pipette. 1mL.

6.5

constant temperature water bath.

6.6

Balance. dividing the value of 0.01g.