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PEOPLE'S REPUBLIC OF CHINA**

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**Animal and vegetable fats and oils - Determination of insoluble
impurities content
(English Translation)**

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Foreword

This document was drafted in accordance with the provisions of GB/T 1.1-2020

"Directives for standardization - Part 1.Rules for the structure and drafting of standardizing documents".

This document replaces GB/T 15688-2008 "Animal and vegetable fats and oils - Determination of insoluble impurities content". Compared with GB/T 15688-2008, in addition to structural adjustments and editorial changes, the main technical content changes are as follows.

a) ADD the inapplicable scope (see Clause 1).

This document is identical to ISO 663:2017 "Animal and vegetable fats and oils - Determination of insoluble impurities content".

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The issuing authority of this document shall not be held responsible for identifying any or all such patent rights.

This document was proposed by National Food and Strategic Reserves Administration.

This document shall be under the jurisdiction of National Technical Committee on Grain and Oil of Standardization Administration of China (SAC/TC 270).

Drafting organizations of this document. Wuhan Institute of Standardization, Wuhan Institute for Food and Cosmetic Control, Wuhan University of Light Industry, Yihai Kerry Arawana Holdings Co., Ltd., Gansu Institute of Standardization.

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The previous released versions replaced by this document are as follows.

- first published in 1995 as GB/T 15688-1995, first revised in 2008;
- this is the second revision.

Animal and vegetable fats and oils - Determination of insoluble impurities content

1 Scope

This document describes the method for determination of insoluble impurities content in animal and vegetable fats and oils.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 661 Animal and vegetable fats and oils - Preparation of test sample

3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

Quantity of substances and foreign impurities that are insoluble in n-hexane or light petroleum under the conditions specified in this document.

4 Principle

Dissolve the specimen in excess n-hexane or light petroleum and filter the solution obtained. Rinse the residue and filter paper with the same solvent and dry them to constant weight at 103 °C.

5 Reagents

WARNING -- The operating rules for handling dangerous goods shall be adopted and various technical, organizational and personal safety measures shall be followed.

6 Apparatus

Crucible filter. glass, of grade P16 (pore size 10 µm ~ 16 µm), diameter 40 mm, of capacity 50 mL, with a suction bottle. It can be used in place of the filter described in

7 Sampling

The sample received by the laboratory should be representative and shall not be damaged or changed during transportation or storage. Sampling is not covered by this document and shall be done in accordance with ISO 5555.

8 Preparation of specimen

Prepare the specimen according to ISO 661.

9 Operating procedure

In a conical flask (6.3), weigh approximately 20 g of the specimen (Clause 8), to the nearest 0.01 g.

Put the crucible filter coated with kieselguhr in the electric drying oven (6.2), dry it in

the electric drying oven at a temperature of 103 °C for 1 h, then transfer it to a desiccator (6.4) to cool and weigh to the nearest 0.001 g.

Carry out two determinations on the same specimen (Clause 8) twice according to the above method.

10 Expression of results

The insoluble impurities content w (expressed as mass fraction) in the specimen is calculated according to formula (1).

where.

11 Precision

Annex A summarizes the interlaboratory tests on the precision of this method. The values obtained from these tests may not be applicable to other concentration ranges and other test objects.

12 Test report

The test report shall contain in detail.

Annex A

(informative)

Inte-laboratory test results

The Federation of Oils, Seeds and Fats Associations (FOSFA) has organized several laboratories to determine the insoluble impurities in palm oil, crude palm oil and palm kernel oil according to ISO 5725-2.

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