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

GB/T 9695.2-2008

Replacing GB/T 9695.2-1988

**Meat and meat products -- Determination of fatty acids
(English Translation)**

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Foreword

GB/T 9695 consists of the following components.

- GB/T 9695.1 "Meat and meat products - Determination of free fat";
- GB/T 9695.2 "Meat and meat products - Determination of fatty acid";
- GB/T 9695.3 "Meat and meat products - Determination of iron content";
- GB/T 9695.4 "Meat and meat products - Determination of total phosphorus content";
- GB/T 9695.5 "Meat and meat pH measurement";
- GB/T 9695.6 "meat Carmine colorant determination";
- GB/T 9695.7 "Meat and meat products - Determination of total fat content";
- GB/T 9695.8 "Meat and meat products - Determination of chloride content";
- GB/T 9695.9 "Meat and meat products polyphosphate determination";
- GB/T 9695.10 "meat and meat products BHC and DDT residues determination";
- GB/T 9695.11 "Meat and meat products - Determination of nitrogen content";
- GB/T 9695.13 "Meat and meat products - Determination of calcium content";
- GB/T 9695.14 "meat starch content determination";
- GB/T 9695.15 "Meat and meat products - Determination of moisture content";
- GB/T 9695.17 "Meat and meat products - Determination of glucono-lactone -delta-content";
- GB/T 9695.18 "Meat and meat products - Determination of ash";
- GB/T 9695.19 "Meat and meat sampling method";
- GB/T 9695.20 "Meat and meat products - Determination of zinc";
- GB/T 9695.21 "Meat and meat products - Determination of magnesium content";

- GB/T 9695.22 "Meat and meat products - Determination of copper content";
- GB/T 9695.23 "Meat and meat products - Determination of hydroxyproline content";
- GB/T 9695.24 "Meat and meat cholesterol content determination";
- GB/T 9695.25 "Meat and meat products - Determination of vitamin PP";
- GB/T 9695.26 "Meat and meat products - Determination of vitamin A content";
- GB/T 9695.27 "Meat and meat products - Determination of vitamin B1";
- GB/T 9695.28 "Meat and meat products - Determination of vitamin B2";
- GB/T 9695.29 "Meat vitamin C content determination";
- GB/T 9695.30 "Meat and meat products - Determination of vitamin E content";
- GB/T 9695.31 "Meat total sugar content determination." this section GB/T 29695 Part of.

The partial modification of the use of ISO 5508:1990 "Animal and vegetable fats --- fatty acid methyl esters by gas chromatography" (in English) and ISO 5509:2000 "Preparation of animal fat --- fatty acid methyl ester" (in English).

This part of ISO 5508:1990 and ISO 5509:2000 as compared to the major technical amendments are as follows.

- The ISO 5509:2000 as part of the preparation process of the fatty acid methyl ester, ISO 5508:1990, as part of this fatty acid Gas chromatographic method methyl;
- Increase Normative references GB/T 6682-2008;
- Reagent water requirement was changed to "shall comply with GB/T 6682-2008 in three water requirements";
- Delete ISO 5509:2000 in 3.6.4, this method does not apply to gas chromatography;
- Delete ISO 5509:2000 in Chapter 4, the method is not commonly used, and the agent in the country is not convenient to purchase;
- Delete ISO 5509:2000 Chapter 5, which does not apply to the determination of free fatty acids, narrow the scope of application;
- To ISO 5508:1990 in the chromatographic conditions to be modified to make it suitable for the modern instruments.

According to GB/T 1.1-2000 "Standardization Guide Part 1. Standard structure and writing rules" and GB/T 20001.4-2001 "Rules for drafting standards - Part 4. Chemical analysis methods" of ISO 5508:1990 and ISO 5509:2000 were primarily editorial Modify as follows.

- Delete ISO 5508 and ISO 5509 preface;
- By decimal points instead of ISO 5508 and ISO 5509 as a decimal point, "";

--- With GB/T 6682-2008 instead of ISO 3696;

--- The formula increases the number.

This Part replaces GB/T 9695.2-1988 "Meat and meat products - Determination of fatty acid." this portion of the GB/T 9695.2-1988 compared to the main changes are as follows.

--- According to GB/T 1.1-2000 and GB/T 20001.4-2001 been restructured and editorial changes;

--- According to GB/T 1.1-2000, delete the English name of "Methodfor";

--- Chapter 2 adds "GB/T 6682-2008" normative references;

--- Chapter 4, "the reagents were of analytical grade, water is distilled water or equivalent purity" to "unless otherwise specified, the test Agents were of analytical grade, "added the method of preparation portion of the solution, increasing the clause" 4.1 Water. should be consistent with GB/T 6682-2008 three water requirements ";

--- Chapter 4 of "isooctane" instead of "heptane";

--- Chapter 5, delete the words "or microprocessor integrator";

--- Chapter 7 of "Weigh the right amount of fat" instead of "fat weighed approximately 350mg";

--- Chapter 7 instead of using capillary column packed columns, chromatographic conditions and the corresponding modification;

--- Chapter 7 adds the "return flow rate control in every drop of 30s ~ 60s";

--- Increased 7.1.2 Notes 2 and 3;

--- Added "Test Report" chapter.

This part is proposed by the China General Chamber of Commerce.

This part of the National Meat egg products Standardization Technical Committee.

This section is drafted. Shenzhen Academy of Metrology and Quality Inspection, China Chamber of Commerce Business Standard Centre.

1 Scope

GB/T 9695 provisions of this part of the lipids of the fatty acid methyl esters prepared according to GB/T 9695.1 and fatty acid obtained by the method Ester mixtures, the qualitative and quantitative determination method by gas chromatography.

This section applies to the determination of fatty acids in meat and meat products.

This section does not apply to the determination of fatty acid polymerization.

2 Normative references

The following documents contain provisions which, through reference to GB/T 9695 to the present, constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 6682-2008 analytical laboratory use specifications and test methods (ISO 3696. 1987, MOD) GB/T 9695.1 Meat and meat products Determination of free fat (GB/T 9695.1-2008, ISO 1444:1996, IDT) Principle 3 Free fat in the boron trifluoride catalysis for saponification and esterification of free fatty acid glycerides, and then analyzed by gas chromatography, Determination of the composition by area normalization method.

4 Reagents

Unless otherwise specified, the reagents were of analytical grade.

4.1

Water. should be consistent with GB/T 6682-2008 in three water requirements.

4.2

methanol solution of sodium hydroxide (0.5mol/L). 2g of sodium hydroxide dissolved in 100mL water content of less than 0.5% (mass fraction) Methanol. When this solution was stored for a long time, small quantities of a white precipitate of sodium carbonate, but do not affect the preparation of the methyl ester.

4.3

methanol solution of boron trifluoride. 12% to 15% (by mass).

4.4

isooctane (2,2,4-trimethyl pentane). chromatography.

NOTE: isooctane flammable, explosive limit in air is 1.1% to 6.0% (volume fraction). Inhalation of toxic and should be used to prevent the use of protective measures Inhalation.

4.5

over anhydrous sodium sulfate.

4.6

with saturated sodium chloride solution.