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

GB/T 9695.27-2008

Replacing GB/T 9695.27-1991

Meat and meat products -- Determination of vitamin B1 content

肉与肉制品 维生素B1含量测定

(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 9695 of Chapter 27.

This Part replaces GB/T 9695.27-1991 "Meat and meat products - Determination of vitamin B1." this section compared with the GB/T 9695.27-1991 The main changes are as follows.

- 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 method" has been restructured and text modify;
- By HPLC method as the first, as the second colorimetric method for determination of meat and meat products in vitamin B1; reagent, Equipment, analysis step, make corresponding changes to the results of the calculation;
- The "sample" chapter is divided into "sampling" and "Sample Preparation" two chapters;
- With "precision 10" and its contents instead of "9 to allow poor" and its contents;
- Added "Test Report" chapter.

Appendix A of this section is an informative annex.

This part of the National Standardization Technical Committee of poultry meat products and centralized.

This section drafted by. China Chamber of Commerce Business Standard Centre, the National Food Quality Supervision and Inspection Center Processing (Guangzhou), Guangzhou Product quality supervision and inspection.

1 Scope

GB/T 9695 provisions of this part of the determination of meat and meat products of vitamin B1 content.

This section applies to meat Determination of vitamin B1 content in meat products and.

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) the first method HPLC Principle 3 Samples by acid hydrolysis, after hydrolysis, the free vitamin B1 (thiamine) in alkaline ferricyanide effect is quantitatively oxidized to have the blue Thiophene dye fluorescence ethyl, iso-butanol, determined by high performance liquid chromatography and filtered. Retention time qualitative, external standard.

4 Reagents and materials

Unless otherwise specified, the reagents were of analytical grade.

4.1

Water. Water line with a GB/T 6682-2008 requirements.

4.2

glacial acetic acid.

4.3

isobutanol.

4.4

potassium chloride or sodium chloride.

4.5

Methanol. chromatography or by redistilled.

4.6

sodium acetate solution (Ba = 2mol/L). Weigh 27.2g of sodium acetate trihydrate, dissolved in water and diluted with water to 100mL.

4.7

hydrochloric acid solution (Ba = 0.1mol/L). draw 2.1mL hydrochloric acid ($\rho_{20} \sim 1.19\text{g/mL}$), diluted with water to 250mL, and mix.

4.8

Peak's amylase (Taka-Diastase) solution (Ba = 100g/L). Weigh 10g peak apos amylase, dissolved in water and diluted with water to 100mL.

Pro preparation before use.

4.9

solution of sodium hydroxide (Ba = 150g/L). Weigh 15g sodium hydroxide dissolved in water and diluted with water to 100mL.

4.10

potassium ferricyanide solution (Ba = 10g/L). Weigh 0.1g iron potassium cyanide dissolved in water and diluted to 10mL.

4.11

oxidant. 10g/L potassium ferricyanide solution (4.10) 1mL, diluted to 100mL with sodium hydroxide solution (4.9).

Pro preparation before use.

Ethanol 4.12 [1 + 4 (volume ratio)]. amount of 200mL of ethanol, was added to 800mL water, and mix.

4.13

acidic ethanol. adjusted with hydrochloric acid solution (4.7) (4.12) pH value of 3.4 to 4.3.

4.14

sodium acetate solution [Ba = 0.05mol/L (pH = 4.5)]. Weigh 3.4g of sodium acetate trihydrate, dissolved in water and diluted with water to 500mL, glacial acetic acid pH (4.2) adjusted value of 4.5.

4.15

precision pH test paper. 0.5 to 5.0.