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

GB/T 9695.17-2008

Replacing GB/T 9695.17-1988

**Meat and meat products -- Determination of
glucono-delta-lactone content
(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 Part 19.

The partial modification of the use of ISO 4133. 1979 "Meat and meat products - Determination of glucono -delta- --- lactone content" (in English).

This part of ISO 4133. 1979 as compared to the major technical amendments are as follows.

- Increased Normative references GB/T 6682-2008;
- Reagent water requirement was changed to "shall comply with GB/T 6682-2008 in three water requirements";
- With GB/T 9695.19 instead of ISO 3100;
- With GB/T 9695.15 instead of ISO 1442.

According to GB/T 1.1-2000 "Standardization Guide Part 1. Standard structure and writing rules" and the main editorial 1979 conducted. GB/T 20001.4-2001 "Rules for drafting standards - Part 4. Chemical analysis methods" of ISO 4133 Modify as follows.

- Delete ISO 4133. 1978 Foreword;
- With "this Part" instead of "this International Standard";
- By decimal points instead of ISO 4133. 1978 as a decimal point, "";
- The formula increases the number.

This Part replaces GB/T 9695.17-1988 "Determination of meat and meat products -delta- glucono-lactone content." this portion of the GB/T 9695.17-1988 compared to the main changes are as follows.

- Part of the name from "Determination Meat and meat -delta- glucono-lactone content" to "meat and meat products -delta- glucose acid lactone Determination of "content";

- According to GB/T 1.1-2000, 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 Normative references GB/T 6682-2008;
- 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 the three water requirements ";
- The Chapter 8, " $\Delta A - (A_2 - A_1) - (A_2B - B_1B)$ " changed to " $\Delta A - (A_2 - A_1) - (A_2B - A_1B)$ ";
- With "9 Precision" and its contents instead of "9 to allow poor" and its contents;
- Added "Test Report" chapter.

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

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

1 Scope

This section GB/T 9695 specifies the method for determination of meat and meat products gluconate - Δ - lactone.

This section applies to the determination of meat and meat products gluconate - Δ - lactone.

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 9695.15 Meat and meat products - Determination of moisture content (GB/T 9695.15-2008, ISO 1442:1997, MOD) GB/T 9695.19 Meat and meat products - Sampling Methods Principle 3 Extracting glucose in the sample - Δ - acid lactone, centrifugation with cold perchloric acid, the supernatant was decanted and filtered. Glucose

in the role of potassium hydroxide- δ - Acid lactone converted into glucose esters. Acetate esters of glucose by the glucose kinase and glucose-6-phosphate dehydrogenase action ester yield Health ribulose 5-phosphate and nicotinamide adenine dinucleotide phosphate (NADP) reduction.

+ Glucose esters of adenosine triphosphate (ATP) $\rightarrow$ Glucose acetate kinase
 Glucose-6-phosphate ester + ADP Glucose-6-phosphate ester + NADP $\rightarrow$ Glucose acetate kinase Ribulose-5-phosphate + NADPH + CO₂ + H-Measured by a spectrophotometer reduced nicotinamide adenine dinucleotide phosphate absorbance and then calculates the glucose acid lactone δ -content.

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

perchloric acid solution. 0.4mol/L solution.

4.3

Potassium hydroxide solution. 2mol/L solution.

4.4

Buffer. Weigh two glycoside phthalate 2.64g ammonia and magnesium chloride 0.284g dissolved in 150mL of water, potassium hydroxide solution was adjusted to pH 8.0, set the volume to 200mL. It can save four weeks at 4 °C.

4.5

nicotinamide adenine dinucleotide phosphate (of NADP) solution. Weigh nicotinamide adenine dinucleotide phosphate sodium salt 50mg, placed Capped vial with 5.0mL dissolved in water. It can save four weeks at 4 °C.

4.6

adenosine triphosphate (ATP) solution. Weigh adenosine triphosphate sodium salt 250mg and sodium bicarbonate 250mg, placed in a Stoppered vial, 5.0mL of water was added to dissolve. It can save four weeks at 4 °C.

4.7

Glucose-6-phosphate dehydrogenase ester (6-PGDH) solution. Each ml glucose 6-phosphate ester dehydrogenase (6-PGDH) suspension containing There are 6-PGDH2.0mg, gluconate kinase and reduced NADP oxidase does not exceed 0.05%. It can be stored for 6 months at 4 °C.