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

GB/T 9695.22-2009

Replacing GB/T 9695.22-1990

Meat and meat products -- Determination of copper content

肉与肉制品 铜含量测定

(English Translation)

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Foreword

GB/T 9695 "Meat and meat products" consists of the following components.

- Part 1. Meat and meat products - Determination of free fat content;
- Part 2. Determination of fatty meat and meat products;
- Part 3. Meat and meat products - Determination of iron content;
- Part 4. Determination of total phosphorus content of meat and meat products;
- Part 5. Meat and meat pH measurement;
- Part 6. Determination of meat Carmine colorant;
- Part 7. Meat and meat products - Determination of total fat content;
- Part 8. Meat and meat products - Determination of chloride content;
- Part 9. Determination of meat and meat products polyphosphate;
- Part 10. Meat and meat products BHC and DDT residues determination;
- Part 11. Meat and meat products - Determination of nitrogen;
- Part 13. Meat and meat products - Determination of calcium content;
- Part 14. Determination of starch content of meat products;
- Part 15. Determination of moisture content in meat and meat products;
- Part 17. Determination of meat and meat products gluconate -delta- lactone content;
- Part 18. Meat and meat products - Determination of total ash;
- Part 19. Meat and meat sampling methods;
- Part 20. Meat and meat products - Determination of zinc;
- Part 21. Meat and meat products - Determination of magnesium content;

- Part 22. Meat and meat products - Determination of copper content;
- Part 23. Meat and meat products - Determination of hydroxyproline content;
- Part 24. Meat and meat products - Determination of cholesterol;
- Part 25. Meat and meat products - Determination of vitamin PP;
- Part 26. Meat and meat products - Determination of vitamin A;
- Part 27. Meat and meat products - Determination of vitamin B1;
- Part 28. Meat and meat products - Determination of vitamin B2;
- Part 29. Determination of vitamin C content of meat products;
- Part 30. Meat and meat products - Determination of vitamin E;
- Part 31. Determination of the total sugar content of meat products.

This section GB/T 9695 of Part 22.

This part of the reference ISO 7952:1994 "Fruits, vegetables and copper content by flame atomic absorption spectrometry." this Part replaces GB/T 9695.22-1990 "Meat and meat products - Determination of copper content." this section compared with the GB/T 9695.22-1990 The main changes are as follows.

Ashing temperature --- dry by the 450 °C to 500 °C;

--- Dry ashing time by the four hours to two hours;

--- 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," the original standards were restructuring and editorial changes.

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

This section drafted by. China Meat Research Center, China Chamber of Commerce Business Standard Centre, Wuhan Disease Control and Prevention System Center, Jiangyin City Product Quality Supervision.

1 Scope

GB/T 9695 provisions of this part of the determination of meat and meat products in copper content.

This section applies to the determination of meat and meat products in copper content.

The detection limit. 0.05mg/kg.

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 analytical laboratory use specifications and test methods (GB/T 6682-2008, ISO 3696. 1987, MOD) GB/T 9695.19 Meat and meat products - Sampling Methods Principle 3 After sample pretreatment dilute acid solution is made directly into the atomic absorption spectrophotometer, using air - acetylene flame atomization, in Measured at 324.8nm, and the absorbance is proportional to the concentration of copper, compared with standard series determination of copper content.

4 Reagents

The reagents used were pure class distinctions, test water should be consistent with GB/T 6682 requirements.

4.1

hydrochloric acid.

4.2

nitrate.

4.3

perchloric acid.

4.4

mixed acid digestion. nitric acid + perchloric acid = 7 + 1.

Nitric acid solution is 4.5. nitric acid = 1 + 1 + water.

4.6

copper standard solution (Ba = 1000µg/mL). national certified reference materials, or prepared as follows. Accurately weigh 1.000g of copper Beaker, was added in a solution of nitric acid (4.5) to dissolve the total amount does not exceed 37mL, transferred to a 1000mL volumetric flask, diluted with water to the mark, and mix.

4.7

copper intermediate standard solution (Ba = 100µg/mL). draw copper standard solution (4.6) 5.00mL, water volume to 50mL.

4.8

copper standard solution ($Ba = 10\mu\text{g/mL}$). draw copper intermediate standard solution (4.7) 5.00mL, water volume to 50mL.

Nitric acid solution is 4.9. 1 + nitric acid + water = 9.

5 Apparatus

All glassware are nitric acid solution (4.9) soaked for more than 2h, rinsed with deionized water after drying or drying before use.

The following routine laboratory equipment and instruments.

5.1

Analysis of balance. weighing accurate to 0.001g.

5.2

quartz crucible.

5.3

Beaker. high type, 300mL ~ 400mL.

5.4

Equipment. for a homogeneous sample. Comprising. a meat grinder, mixed with chopped meat and other tissue grinder.