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

GB 25536-2010

**Radish red of the national food safety standards of food
additives**

食品添加剂 萝卜红

(English Translation)

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Table of Contents

- Foreword
- 1 Scope
- 2 Normative references
- 3 Technical requirements

Foreword

Appendix A of this standard is a normative appendix.

National Food Safety Standard Radish Red Food Additives

1 Scope

This standard applies to red radish (*Raphanus sativus* L.) as raw material, extraction, refining, diluted powder available dextrin or liquid food additives radish red.

2 Normative references

The standard file referenced in the application of this standard is essential. For cited documents with dates, only the date of Version applies to this standard. For undated references, the latest edition (including any amendments) applies to this standard.

3 Technical requirements

3.1

Sensory requirements. comply with Table 1.

Table 1 Sensory requirements

Project requires test methods Crimson red color to take appropriate sample is placed in a clean, dry white porcelain dish or beaker, in natural light, observe its color and texture, and olfactory its taste.

Luo Bute odor with a slight odor Powder or liquid state organization

3.2

Physical indicators. to comply with Table 2.

Table 2. Physical and chemical indicators

project

index

Testing method

Liquid powder

Color value cmE (514 nm $\pm$ 5nm) ≥ 10 5 Appendix A A.3 Residue on ignition, w /% ≤ 5 5 Appendix A A.4 Loss on drying, w /% ≤ 8 - GB 5009.3-2010 direct drying Arsenic (As)/(mg/kg) ≤ 2 2 GB/T 5009.11 Lead (Pb)/(mg/kg) ≤ 2 2 GB 5009.12 Appendix A (Normative) Testing method A.1 General Provisions Unless otherwise indicated in the analysis using only recognized as analytical reagents and GB/T 6682-2008 specified in the water. In the analysis Standard titration solution, impurities measured by standard solution, preparations and products, did not indicate when the other requirements, according to GB/T 601, GB/T 602, the provisions of preparation GB/T 603's. This solution was used in the test does not indicate what is formulated with solvent, it refers to an aqueous solution.

A.2 Identification Test A.2.1 color reaction Weigh approximately 1 g sample with a pH 3.0 citrate - disodium hydrogen phosphate buffer solution and diluted to 100 mL, the solution should be reddish ~ Purple color; adding an appropriate amount of sodium hydroxide solution (40g/L) in this sample solution, the sample solution is alkaline when the strain is violet.

A.2.2 absorption maxima Take A.3 color value determination of red radish sample solution by spectrophotometer, at a wavelength of 514nm $\pm$ 5nm range should be one of the most Large absorption peak.

A.3 Determination of Color Value A.3.1 Reagents and materials

a) citric acid.

b) disodium hydrogen phosphate.

c) Disodium hydrogen phosphate solution. 0.2 mol/L. Accurately weighed 71.63 g disodium hydrogen phosphate ($\text{Na}_2\text{HPO}_4 \cdot 12\text{H}_2\text{O}$), water volume to 1000 mL.

d) citric acid solution. 0.1 mol/L. Accurately weighed 21.01 g citric acid ($\text{C}_6\text{H}_8\text{O}_7 \cdot \text{H}_2\text{O}$), water volume to 1000 mL.

e) citric acid - disodium hydrogen phosphate buffer (pH 3.0). the amount of 4.11mL A.3.1 c) with a solution of 15.89mL A.3.1 d) Solution, mix, shake. If the pH is 3.0, with an acid or a base to adjust the pH to 3.0.

A.3.2 Instruments and Equipment Spectrophotometer.

A.3.3 Analysis step

Accurately weighed 0.1g ~ 0.2 g sample (accurate to 0.000 2 g), with citric acid - dissolved disodium hydrogen phosphate buffer, transferred to a 100 mL Flask, add citric acid - disodium hydrogen phosphate buffer to volume, shake. Take this sample was placed in a 1

cm cuvette to slow Chong was doing blank absorbance was measured with a spectrophotometer at $514\text{nm} \pm 5\text{ nm}$ range of the maximum absorption wavelength. (Absorbance control should Made between 0.3 to 0.7, or the concentration of the sample should be adjusted, and then the absorbance was measured again.) A.3.4 Calculation Results Color value according to the formula (A.1) Calculated.

1) $5514 (x = \pm c$

AnmnmE cm (A.1)

Where.

) $5514 (\text{nmnmE cm} \pm$ - sample concentration of 1%, with a 1cm cuvette at $514\text{nm} \pm 5\text{ nm}$ range, the maximum absorption Close wavelengths measured color value;

Absorbance of the sample solution A-- actually measured;

c-- concentration of the sample solution to be tested, in grams per milliliter (g/mL).

The results parallel arithmetic mean of the measurement results shall prevail. Twice in the same condition absolutely independent determination results the difference is not more than 5% of the arithmetic mean.

A.4 Determination of residue on ignition A.4.1 Analysis step Weigh 2 g sample (accurate to 0.001 g), placed in a pre constant weight of the crucible (first evaporated liquid products), low heat and slowly add Heat to completely carbonized, then carefully transferred to a high temperature furnace burning at about $600\text{ }^{\circ}\text{C}$ to constant weight.

A.4.2 Calculation Results Residue on ignition by the formula (A.2) Calculated.

twenty three

$\text{mmX\% (A.2)}$

Where.

X-- sample ignition residue content,%;

Quality m_1 -- crucible and residue on ignition in grams (g);

m_2 -- crucible mass in grams (g);

Quality m_3 -- crucible and the sample in grams (g).

The results parallel arithmetic mean of the measurement results shall prevail. Twice in the same condition absolutely independent determination results the difference is not more than 5% of the arithmetic mean (powder) or 10% (liquid).