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NATIONAL STANDARD OF THE

PEOPLE'S REPUBLIC OF CHINA

GB/T 22299-2026

Replacing GB/T 22299-2008

Paprika - Determination of extractable colour matter content - Spectrophotometric determination

辣椒粉 可提取着色物质含量测定 分光光度法

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document replaces GB/T 22299-2008 "Determination of Total Natural Coloring Substances in Chili Powder" and is consistent with GB/T 22299-2008.

Compared to previous versions, aside from structural adjustments and editorial changes, the main technical changes are as follows.

---Added terms and definitions for "extractable coloring substances" and "chili powder" (see Chapter 3);

---The reagents "sulfuric acid solution" and "standard colorimetric solution" have been deleted (see sections 4.2 and 4.3 of the 2008 edition);

---The category of "instrument" has been changed (see Chapter 6, Chapter 5 in the 2008 edition);

---The sampling method has been changed (see Chapter 7, Chapter 6 in the 2008 edition);

---The method for "samples" has been changed (see Chapter 8, Chapter 7 of the 2008 edition);

---The "Experimental Procedure" has been revised (see Chapter 9, Chapter 8 of the 2008 edition);

---The calculation formula has been changed (see 10.1, 9.1 in the 2008 edition);

---The word "precision" has been removed (see section 9.2 of the 2008 edition);

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---Added "Result Representation" (see 10.2);

---The "Test Report" has been amended (see Chapter 11, Chapter 10 of the 2008 edition).

This document is modified to adopt ISO 7541:2020, "Spices and seasonings-Spectrophotometric determination of extractable coloring substances in chili powder." content".

This document has undergone the following structural adjustments compared to ISO 7541:2020.

---The untitled section 5.1 of ISO 7541:2020, which was listed separately, has been removed; the content of Chapter 5 (suspended section) and 5.1 has been merged.

---The section on suspension of general laboratory equipment in Chapter 6 "Instruments" of ISO 7541:2020 has been deleted;

---Chapter 10 corresponds to Chapters 10 and 11 of ISO 7541:2020, where 10.1 corresponds to Chapter 10 of ISO 7541:2020.

Chapter 10.2 corresponds to Chapter 11 of ISO 7541:2020;

---Chapter 11 corresponds to Chapter 12 in ISO 7541:2020.

The technical differences between this document and ISO 7541:2020, and the reasons therefor, are as follows.

---An explanation of the conversion factor "16.4" has been added [see formula (1)] to facilitate practical understanding and use;

---The requirements for result representation have been changed (see 10.2) to facilitate the practical use of this method in my country;

---Notes to Chapter 10 and Appendix A of ISO 7541:2020 have been deleted. The deletion does not affect the understanding and use of this document.

---The references to ISO 7541:2020 have been removed. The removal does not affect the understanding and use of this document.

The following editorial changes have been made to this document.

---To align with existing standards, the standard name has been changed to "Spectrophotometric Method for Determination of Extractable Coloring Substances in Chili Powder";

---The wording in Chapter 8 has been changed.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the All China Federation of Supply and Marketing

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Cooperatives.

This document is under the jurisdiction of the National Spices and Flavours Standardization Technical Committee (SAC/TC408).

1 Scope

This document describes a method for determining the total extractable coloring substances in chili powder by measuring the absorbance of acetone extract in a sample.

method.

This document applies to the determination of the total content of extractable coloring substances in chili powder (sweet peppers, hot peppers, smoked peppers, etc.).

2 Normative references

This document has no normative references.

3 Terms and Definitions

The following terms and definitions apply to this document.

Extractable color

The soluble substances (extracts) in acetone were determined according to the procedure described in this document.

Paprika (chili powder) product.

4 Principles

Extractable coloring substances in samples were tested using acetone, and the absorbance of the resulting solution was measured at a wavelength of 460 nm using a spectrophotometer.

Light value.

5 Reagents

Acetone. analytical grade.

6 Instruments

6.1

Analytical balance. accuracy 0.1 mg.

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6.2

Pipettes. 10mL, Grade A.

6.3

Cuvette. 1cm optical path, usable in the ultraviolet/visible wavelength range, with a lid.

6.4

Spectrophotometer. Suitable for absorbance measurement at a wavelength of 460 nm. To ensure the accuracy of the experiment, the spectrophotometer should be calibrated regularly.

Calibration and verification.

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