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

GB/T 22250-2025

Replacing GB/T 22250-2008

Determination of chlorogenic acid in health foods

保健食品中绿原酸的测定

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. This document specifies the technical requirements for food quality. For food safety requirements, please refer to relevant laws, regulations, policies and food safety standards. document. This document replaces GB/T 22250-2008 "Determination of chlorogenic acid in health foods". In addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope of application has been changed (see Chapter 1, Chapter 1 of the.2008 edition);
- b) The sample preparation and sample handling have been changed (see 7.1, 7.2, and 5.1 of the.2008 edition);
- c) The chromatographic reference conditions have been changed (see 7.3, 5.3 of the.2008 edition);
- d) The detection limit and quantification limit have been changed (see Chapter 10, Chapter 1 of the.2008 edition). Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed and coordinated by the National Technical Committee for Standardization of Special Foods (SAC/TC466). This document was drafted by: China Light Industry Technology Innovation Center Co., Ltd., China Food Fermentation Industry Research Institute Co., Ltd., Shenzhen Metrology Quality Management Co., Ltd. Quality Inspection Institute, China Customs Science and Technology Research Center, Perfect (Guangdong) Daily Necessities Co., Ltd., Guangzhou Dongpeng Food and Beverage Co., Ltd. Co., Ltd., Tianjin University of Science and Technology, China Light

Industry Inspection and Certification Co., Ltd., and Simao Customs Comprehensive Technical Service Center. The main drafters of this document are. Wu Zhuying, Zhong Qiding, Zhang Zhaohui, Zhang Xieguang, Liu Ming, Li Junbo, Hu Hai'e, Lan Xiong, Zhang Cuiying, Liu Yang, Wu Yifan, Chen Nannan, Guo Xinguang, Bie Wei, Wei Jianming, Li Xueli, Qi Zhengyou, Ji Xin, Chai Xiao, Zeng Lubin, and Zhang Xin. The previous versions of this document and the documents it replaces are as follows:

---First published in.2008 as GB/T 22250-2008;

---This is the first revision. Determination of Chlorogenic Acid in Health Food

1 Scope

GB/T 22250-2025 is the Chinese national standard on determination of chlorogenic acid in health foods, in the field of food technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 28 March 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 October 2025. Classification: ICS 67.050, CCS X83. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document describes a method for the determination of chlorogenic acid in health foods by HPLC. This document applies to chlorogenic acid in health foods in dosage forms such as tablets, hard candies, hard capsules, soft capsules, oral liquids, beverages, etc. Determination.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 6682 Specifications and test methods for water used in analytical laboratories

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4 Principle

The chlorogenic acid in the sample was extracted with 70% methanol solution, separated by high performance liquid chromatography, detected by ultraviolet detector, and determined by retention time. Quantitative analysis by external standard method.

5 Reagents or materials

Unless otherwise specified, only analytical grade reagents were used.

5.1 Reagents

5.1.1 Water. Grade 1 water as specified in GB/T 6682.

5.1.2 Acetonitrile (C₂H₃N). chromatographic grade.

5.1.3 Petroleum ether (boiling range 30°C~60°C).

5.2 Reagent preparation 5.2.1 70% (volume fraction) methanol solution. measure 700 mL of methanol (chromatographic grade), dilute to 1000 mL with water, and mix well. 5.2.2 0.1% (volume fraction) phosphoric acid solution. Pipette 1 mL of phosphoric acid, dilute to 1000 mL with water, and mix well.

5.3 Standard substances or standard samples Chlorogenic acid (C₁₆H₁₈O₉, CAS No.. 327-97-9). purity not less than 98%, or a nationally certified standard substance or Standard samples.