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

GB/T 22247-2024

Replacing GB/T 22247-2008

Determination of icariin in health foods

保健食品中淫羊藿苷的测定

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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 related to food quality. For food safety requirements, please refer to relevant laws, regulations, policies and food safety standards. document. This document replaces GB/T 22247-2008 "Determination of Icariin 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) Added sample preparation (see 7.1);

c) The sample processing method has been changed (see 7.2, 5.1 of the.2008 edition);

d) The reference conditions for liquid chromatography have been changed (see 7.3, 5.3 of the.2008 edition);

e) 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 was proposed and coordinated by the National Technical Committee for Standardization of Special Foods (SAC/TC466). This document was drafted by: Hebei Food Inspection Institute, China Light Industry Technology Innovation Center Co., Ltd., China Food Fermentation Industry Research Institute Co., Ltd., Amway (China) Daily Products Co., Ltd., Henan University, Nanjing Food and Drug Administration, Jinpai Co.,

Ltd., Guangdong Province Institute of Testing and Analysis of the Chinese Academy of Sciences (Guangzhou Analysis and Testing Center, China), Ningbo Yufangtang Biotechnology Co., Ltd. The main drafters of this document are. Zhang Yan, Zhong Qiding, Wu Zhuoying, Fan Sufang, Kang Wenyi, Li Qiang, Luo Rong, Wang Daobing, Ying Yue, Wang Liping, An Hongmei, Yue Hongwei, Wu Yifan, Yang Jing, Liu Xuqiang, Li Xianzhi, Jia Fuhuai, Liu Qinan, Zhang Fangyuan, Ma Junzhan, Yan Yongqiu. The previous versions of this document and the documents it replaces are as follows:

---First published in.2008 as GB/T 22247-2008;

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

1 Scope

GB/T 22247-2024 is the Chinese national standard on determination of icariin 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 31 December 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 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 icariin in health foods by HPLC. This document applies to the preservation of dosage forms such as tablets, hard capsules, soft capsules, powders, granules, oral liquids, pills, ointments, wine preparations, tea preparations, etc. Determination of icariin in health foods.

2 Normative references

The contents of the following documents constitute the 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

Icariin in the sample was extracted with 70% ethanol solution, and the oily sample was degreased with n-hexane, filtered, and analyzed by high performance liquid chromatography. The product was detected by UV detector, qualitative analysis was performed by retention time and quantitative analysis was performed by external standard method.

5 Reagents or materials

Unless otherwise specified, only chromatographic grade reagents were used.

5.1 Reagents

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

5.1.2 Ethanol ($\text{C}_2\text{H}_5\text{OH}$).

5.1.3 Methanol (CH_3OH).

5.1.4 n-Hexane [$\text{CH}_3(\text{CH}_2)_4\text{CH}_3$]. analytical grade.

5.1.5 Acetonitrile (CH_3CN). 5.1.6 70% (volume ratio) ethanol solution. measure 700 mL of ethanol (5.1.2), dilute to 1000 mL with water, mix well and set aside.

5.2 Standard samples or standard substances Icariin standard product. purity not less than 98%, or standard sample or standard substance certified by the state. The Chinese name, English name, CAS number, molecular formula and structural formula are shown in Table A.1 in Appendix A.