

ICS 65.120

CCS B46



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

GB/T 17812-2025

Replacing GB/T 17812-2008

**Determination of vitamin E in feeds - High performance liquid
chromatography**

饲料中维生素E的测定 高效液相色谱法

Issued on: January 24, 2025

Implemented on: August 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

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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 replaces GB/T 17812-2008 "Determination of vitamin E in feed by high performance liquid chromatography" and GB/T 17812- Compared with.2008, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope of application of the saponification extraction method and the direct extraction method has been expanded to include concentrate supplements and compound premixed feeds (see Chapter 1);
- b) The extractant is changed to petroleum ether (boiling range 30°C~60°C) (see Chapter 4, Chapter 3 of the.2008 edition);
- c) Added vitamin E (dl-alpha-tocopherol) standard series solution (see 4.2.16);
- d) The sample preparation requirements have been changed (see 4.4, 3.5 of the.2008 edition);
- e) Added solid phase extraction method (see 4.5.1.2.2);
- f) Deleted normal phase chromatography conditions (see Chapter 3 of the.2008 edition);
- g) The detection wavelength has been changed (see 4.5.2.1, 3.6.2.1.2 of the.2008 edition);
- h) Added liquid chromatography reference conditions II (see 4.5.2.2);
- i) Added qualitative method and multi-point calibration for quantitative method (see 4.5.2.4 and 4.5.2.5);
- j) The test data processing has been changed (see

1 Scope

GB/T 17812-2025 is the Chinese national standard on determination of vitamin e in feeds - high performance liquid chromatography, in the field of agriculture. 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 24 January 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 August 2025. Classification: ICS 65.120, CCS B46. 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.

4.1 Principle The vitamin E in the sample is saponified with alkaline solution, purified by liquid-liquid extraction or solid phase extraction, and determined by high performance liquid chromatography using the external standard method. Quantitative.

4.2 Reagents or materials Unless otherwise specified, only analytical grade reagents were used.

4.2.1 Water. GB/T 6682, Grade 1.

4.2.2 Anhydrous ethanol. chromatographic grade.

4.2.3 Anhydrous ethanol.

4.2.4 Petroleum ether. boiling range 30°C~60°C.

4.2.5 Methanol. chromatographic grade.

4.2.6 Acetonitrile. chromatographic grade.

4.2.7 Formic acid. chromatographically pure.

4.2.8 L-Ascorbic acid.

4.2.9 Butylated hydroxytoluene (BHT).

4.2.10 Anhydrous sodium sulfate.

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

GB/T 20195 Preparation of animal feed samples

3 Terms and definitions

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

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