ICS 65.120
CCS B 46

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 17817-2024

Replacing GB/T 17817-2010

Determination of vitamin A in feeds - High performance liquid chromatography

饲料中维生素A的测定 高效液相色谱法

Issued on: November 28, 2024 **Implemented on: June 1, 2025**

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

Table of Contents

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 is required. This document replaces GB/T 17817-2010 "Determination of Vitamin A in Feed - High Performance Liquid Chromatography" and is compatible with GB/T 17817- Compared with.2010, in addition to structural adjustments and editorial changes, the main technical changes are as follows: The scope of application has been changed, concentrate supplements and compound premixed feeds have been added, and the quantitative Limited (see Chapter 1, Chapter 1 of the.2010 edition);

a) Added the standard series of vitamin A solutions in the "First Method of Saponification Extraction" (see 4.2.19);

b) Change the sample preparation method of compound feed, concentrate supplement and concentrated feed in the "First Method Saponification Extraction Method" to Pass through a 1 mm sieve (see 4.4,

3.5 of the.2010 edition);

c) Change the extractant of "First Method Saponification Extraction Method" to "petroleum ether" (boiling range 30 °C ~ 60 °C) (see 4.5.1.2.1,

3.6.1.2 of the.2010 edition);

d) Added off-line solid phase extraction method (see 4.5.1.2.2) and on-line solid phase extraction method (see 4.5.1.2.3);

e) Deleted normal phase chromatography conditions (see 3.6.2.1.1 of the.2010 edition);

f) Added liquid chromatography reference conditions (see

4.5.2.2 and 4.5.2.3);

g) Added qualitative detection method, and added multi-point calibration for quantitative detection (see 4.5.2.5, 4.5.2.6);

h) The experimental data processing in the "First Method Saponification Extraction Method" has been changed (see 4.6, 3.6.2.3.1 of the.2010 edition);

i) Added vitamin A standard series solution in the "Second Method Direct Extraction Method" (see 5.2.5);

1 Scope

GB/T 17817-2024 is the Chinese national standard on determination of vitamin a 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 28 November 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 June 2025. Classification: ICS 65.120, CCS B 46. 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 vitamin A in feeds by HPLC. The "first method of saponification extraction" in this document is applicable to compound feed, concentrate supplement, concentrated feed, compound premix feed, vitamin Determination of vitamin A in vitamin premix feed; "Method 2 direct extraction method" is

applicable to compound premix feed, vitamin premix feed Determination of vitamin A acetate in feed. The first limit of quantification in this document is 1 000 IU/kg, and the second limit of quantification is 20 000 IU/kg.

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. in 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.