

ICS 65.120

CCS B46



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

**GB/T 22261-2025**

Replacing GB/T 22261-2008

**Determination of virginiamycin in feeds**

饲料中维吉尼亚霉素的测定

**Issued on: June 30, 2025**

**Implemented on: January 1, 2026**

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

## Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Liquid chromatography-tandem mass spectrometry
- 4.2.7 Ammonium acetate solution (

### 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 22261-2008 "Determination of Virginiamycin in Feed - High Performance Liquid Chromatography" and is compatible with GB/T 22261- Compared with.2008, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope of application, detection limit and quantification limit have been changed (see Chapter 1, Chapter 1 of the.2008 edition);
  - b) Liquid chromatography-tandem mass spectrometry has been added (see Chapter 4);
  - c) The principles, experimental procedures and experimental data processing of HPLC have been modified (see Chapter 5, Chapters 3 and 4 of the.2008 edition). Chapter 7).
- 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 Feed Industry Standardization Technical Committee (SAC/TC 76). This document was drafted by: Zhejiang Jindakang Animal Health Products Co., Ltd., Zhejiang Provincial Animal Disease Prevention and Control Center (Zhejiang Provincial Veterinary Drug and Feed Materials Supervision Office). The main drafters of this document are. Huang Juan, Qiu Chengjun, Liu Yan, Lv Weijun, Zhou Wei, Chen Jie, Chen Yong, Zhao Lili, Luo Chengjiang, Shen Hongxia, Yuan Lu, Wang Bin, Zhang Zhijian, and Ruan Xin. The previous versions of this document and the documents it replaces are as follows: --First published in.2008 as GB/T 22261-2008; --This is the first revision. Determination of Virginiamycin in Feed

### 1 Scope

GB/T 22261-2025 is the Chinese national standard on determination of virginiamycin in

feeds, 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 30 June 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 January 2026. 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.

This document describes a method for the determination of virginiamycin in feed by liquid chromatography-tandem mass spectrometry and high performance liquid chromatography. This document applies to the use of virginiana in compound feeds, concentrated feeds, concentrate supplements, additive premixes and mixed feed additives. Determination of virginiamycin (calculated as the sum of virginiamycin M1 and virginiamycin S1). The detection limit of the liquid chromatography-tandem mass spectrometry method in this document is

0.02 mg/kg, and the limit of quantification is

0.05 mg/kg; the detection limit of the high performance liquid chromatography method is

0.02 mg/kg, and the limit of quantification is

0.05 mg/kg. The limit of detection is

0.5 mg/kg and the limit of quantification is 1 mg/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 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.

## 4 Liquid chromatography-tandem mass spectrometry

4.1 Principle The analytes in the sample were extracted with ethyl acetate, purified by a

purification salt package and solid phase extraction column, and determined by liquid chromatography-tandem mass spectrometry. Standard quantitative method.

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 Ethyl acetate.

4.2.4 Methanol. chromatographic grade.

4.2.5 Acetonitrile. chromatographic grade.

4.2.6 Formic acid. chromatographically pure.

#### **4.2.7 Ammonium acetate solution (**

0.05 mmol/L, pH 4.0). Weigh

3.85 g of anhydrous ammonium acetate and dissolve it in water to make up to 1000 mL. The pH was adjusted to

4.0 with glacial acetic acid.

4.2.8 Methanolic ammonium acetate solution. methanol (4.2.4) to ammonium acetate solution (4.2.7) = 1.3 (volume ratio). 4.2.9 40% methanol solution. Measure 40 mL of methanol (4.2.4), dilute to 100 mL with water, and mix thoroughly.