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

**GB/T 21108-2025**

Replacing GB/T 21108-2007

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**Determination of chloramphenicol, thiamphenicol and  
florfenicol in feeds - High performance liquid  
chromatography-tandem mass spectrometry**

饲料中氯霉素、甲砒霉素和氟苯尼考的测定 高效液相色谱-串联质谱法

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## Table of Contents

|                         |
|-------------------------|
| Foreword                |
| 1 Scope                 |
| 2 Normative references  |
| 3 Terms and Definitions |
| 4 Principles            |
| 5 Reagents or materials |

### 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 21108-2007 "Determination of chloramphenicol in feed - High performance liquid chromatography tandem mass spectrometry" and GB/T 8381.9-2005 "Determination of Chloramphenicol in Feed by Gas Chromatography", this document is based on GB/T 21108-2007 and integrates GB/T 8381.9-2005 Compared with GB/T 21108-2007, in addition to structural adjustments and editorial changes, the main technical changes of this document are as follows.

- a) The scope of application, detection limit and quantification limit have been changed (see Chapter 1, Chapter 1 of GB/T 21108-2007);
- b) The principle has been changed (see Chapter 4, Chapter 3 of GB/T 21108-2007);
- c) The test procedures have been changed (see Chapter 8, Chapter 7 of GB/T 21108-2007).

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/TC76).

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The previous versions of this document and the documents it replaces are as follows.

- GB/T 8381.9-2005, first issued in 2005;
- GB/T 21108-2007, first issued in 2007;
- This is the first revision.

Determination of chloramphenicol, thiamphenicol and florfenicol in feed High-performance liquid chromatography-tandem mass spectrometry

## 1 Scope

This document describes a method for the determination of chloramphenicol, thiamphenicol, and florfenicol in feed by high performance liquid chromatography-tandem mass spectrometry.

This document applies to compound feeds, concentrated feeds, concentrate supplements, additive premixes, animal-derived feed ingredients and mixed feeds.

Determination of chloramphenicol, thiamphenicol and florfenicol in feed additives.

The detection limit of chloramphenicol in this document is 1 µg/kg, the quantification limit is 2 µg/kg, the detection limit of thiamphenicol and florfenicol is 5 µg/kg, The limit of quantification was 15 µg/kg.

## 2 Normative references

GB/T 6682

GB/T 20195

## 3 Terms and Definitions

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

## 4 Principles

Chloramphenicol, thiamphenicol and florfenicol in the sample were extracted with ethyl acetate under alkaline conditions, dried with nitrogen, re-dissolved with water, and then dissolved in n-hexane.

The products were defatted and determined by liquid chromatography-tandem mass spectrometry with internal standard method for quantification.

## 5 Reagents or materials

Unless otherwise specified, only analytical grade reagents were used.

5.1 Water. GB/T 6682, Grade 1.

5.2 Methanol. chromatographic grade. 5.3 Ammonia water. 5.4 Ethyl acetate. 5.5 n-hexane.

5.6 Standard stock solution (1 mg/mL). weigh chloramphenicol (CAS No.. 56-75-7, purity not less than 98%), thiamphenicol (CAS No..

15318-45-3, purity not less than 98%) and florfenicol (CAS No. 73231-34-2, purity not less than 98%) standard 10 mg each (precision Accurate to 0.01 mg), place in 10 mL volumetric flasks, dissolve with methanol (5.2), make up to volume, and mix well. Store below -18°C, valid for 6 months. Or purchase standard solution.