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PEOPLE'S REPUBLIC OF CHINA**

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**Determination of beta-apo-8'-carotenoic acid ethyl ester in
feeds-High performance liquid chromatography**

饲料中 β -阿朴-8'-胡萝卜素酸乙酯的测定 高效液相色谱法

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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 is required.

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 Feed Industry Standardization Technical Committee (SAC/TC 76).

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beta?apo?8'?carotene acid ethyl ester in feed HPLC

1 Scope

This document describes a method for the determination of beta-apo-8'-carotene acid ethyl ester in feeds by high performance liquid chromatography.

This document applies to beta-apo-8'-carotene acid ethyl ester in compound feed, concentrated feed, concentrate supplement and additive premix feed. Determination of.

The detection limit of beta-apo-8'-carotene acid ethyl ester in compound feed, concentrated feed and concentrate supplement in this document is 0.15 mg/kg, The limit of quantification is 0.50 mg/kg; the detection limit of beta-apo-8'-carotene acid ethyl ester in additive premix feed is 1.5 mg/kg and the limit of quantification is It is 5.0 mg/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 Principle

The beta-carotene acid ethyl ester in the sample was dispersed in water, extracted with ethanol and dichloromethane, and purified with a solid phase extraction column (prepared with additives).

Mixed feeds excluded), determined by high performance liquid chromatography and quantified by external standard method.

5 Reagents or materials

Unless otherwise specified, only analytical grade reagents were used.

5.1 Water. GB/T 6682, Grade 1. 5.2 Dichloromethane. 5.3 Anhydrous ethanol.

5.4 Acetonitrile. chromatographic grade.

5.5 Methanol. chromatographic grade.

5.6 2,6-butylene glycol (BHT).

5.7 50% acetonitrile solution. Take 100 mL of acetonitrile (5.4), dilute to 200 mL with water, and mix well.

5.8 Standard stock solution (200 µg/mL). Weigh beta-apo-8'-carotene acid ethyl ester

standard (CAS No.

1109?11?1, purity $\geq 98.5\%$), place an appropriate amount (accurate to 0.01 mg) in a brown volumetric flask, and dissolve the fixed

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