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

YC/T 331-2010

**Determination of triacetin in cellulose acetate filter rods. Gas
chromatography method
(English Translation)**

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

The measurement standard reference to international cooperation in scientific research center Tobacco (CORESTA) recommended method No. 59 "in the plug of glycerol triacetate GC set "to develop.

This standard was proposed by the State Tobacco Monopoly Bureau.

This standard by the National Standardization Technical Committee of tobacco smokable material Technical Committee (SAC/TC144/SC8) centralized.

This standard was drafted. Shenzhen tobacco industry limited liability company.

1 Scope

This standard specifies the method for determination of acetate fiber filter rods (hereinafter referred to as the filter rod) in glycerol triacetate --- Gas Chromatography.

This standard applies to cellulose acetate filter rods containing glycerol triacetate plasticizer.

The method for the determination of Acetate Filter Rod with glycerol triacetate detection limit of 0.10mg/rod, limit of quantification was 0.34mg/rod.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 16447 Tobacco and tobacco products conditioning and testing atmosphere Principle 3 with added internal standard ethanol extraction Acetate Filter Rod glycerol triacetate, use with a flame ionization detector gas Chromatograph measured using internal standard.

4 Reagents

Addition to special requirements, you should use analytical grade reagents.

4.1

ethanol.

4.2

anethole (internal standard), should not be less than 99% purity.

Gas chromatography analysis, the case with glycerol triacetate and sample interfering peaks of other components, to meet the purity Seeking positive heptadecane can also be used as an internal standard. It should ensure that each sample was measured when the internal standard peak area remains substantially unchanged. If the change Change, you should use the sample extract without internal standard to verify, confirm the peak position of sample components, including non-standard material is eluted.

4.3

Extraction solvent. ethanol solution containing the appropriate concentration of the concentration of standard (4.2) is generally 1.0mg/mL ~ 1.5mg/mL.

4.4

glycerol triacetate, a purity of not lower than 99%.

4.5 Standard solution

4.5.1

Standard stock solution. Weigh about 5g of glycerol triacetate (4.4), accurate to 0.0001g, dissolved with extracting agent (4.3) Transfer to 100mL volumetric flask, and volume.

4.5.2

Standard working solution. Dilute stock standard solution (4.5.1) with extracting agent (4.3), the preparation of at least five different concentrations of standard working solution and a concentration range should cover the expected content of the detected sample glycerol triacetate, usually 0.5mg/mL ~ 5.0mg/mL.

5 Instruments

5.1

commonly used test equipment.

5.2

Gas chromatograph. equipped with a flame ionization detector and a split injection mode inlet.

5.3

Capillary Column. 30m x 0.53mm x 1.0µm, the stationary phase is cross-linked polyethylene glycol (PEG). Use other column fulfilled Proof that its applicability.

6.1 Filter rod adjustment

The sample is placed in the plug of GB/T 16447 provisions regulating atmospheric environment for at least 24h.