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

SN/T 2544-2010

**Determination of content in glycerine. High performance liquid
chromatography**

甘油含量的测定 高效液相色谱法

(English Translation)

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Foreword

This standard Annex A, Annex B, Annex C is informative appendices.

This standard is proposed and managed by the National Certification and Accreditation Administration Committee.

This standard was drafted. People's Republic of China Shanghai Entry-Exit Inspection and Quarantine Bureau.

Drafters of this standard. Sundui Wei, Wu Xiaohong, Zhang Lin, Shao Min.

This standard is the first release of the entry-exit inspection and quarantine industry standards.

Glycerol content by HPLC

1 Scope

This standard specifies the method for liquid chromatography glycerol content.

This standard applies to the determination of the content of different specifications and saponification glycerol synthetic glycerine content.

This standard also applies to the qualitative identification of mixed ethylene glycol, diethylene glycol, triethylene glycol and sorbitol as the main raw material of glycerin alternatives.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including

errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 6682 analytical laboratory use specifications and test methods (ISO 3696. 1987, MOD)

3 Method summary

This method uses amino-bonded column, reverse phase chromatography on with a differential refractive index detector (RID) high performance liquid chromatography with External standard method for quantitative determination.

4 Reagents and materials

Unless otherwise specified, use only analytical grade reagents, laboratory water should comply with the GB/T 6682 in a water requirements.

4.1

acetonitrile. HPLC grade.

4.2

Mobile phase. acetonitrile + water, 85 + 15 (Vp/Vp).

4.3

Glycerin Standard. known content.

4.4

Needle quality nylon filter. 0.45μm, the diameter of 13mm.

4.5

quality nylon or regenerated cellulose membrane filter. 0.45μm, the diameter of 47mm.

5 Instruments

5.1

high performance liquid chromatography.

5.2

Detector. differential refractive index detector and column oven with hot and cold caused.

5.3

Column. NH₂ column, 250mm x 4.6mm, 5μm or equivalent persons (i.d.).

5.4

ultrasound.

5.5

flask, 50mL and 100mL.

5.6

Analytical balance, a sense of the amount of 0.1mg.

5.7

liquid weighing bottle, 25mL.

6 Chromatographic operating conditions

6.1

mobile phase. acetonitrile + water, 85 + 15 (Vp/Vp) (4.2), or line degasser degassed by day in advance;

6.2

flow rate. 1.0mL/min;

6.3

column temperature. 30.0 °C;

6.4

RID Temperature. 35.0 °C;

6.5

Injection volume. 10.0μL, wash the needle with mobile phase.