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

GB/T 23225-2008

**Tobacco and tobacco products -- Determination of alkaloids --
Spectrometric method
(English Translation)**

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Foreword

This revised standard adopts ISO 2881:1992 "Tobacco and tobacco products total alkaloids spectrophotometric determination" (in English).

This standard is based on ISO 2881:1992 re-drafted.

Taking into account China's national conditions, with ISO 2881 this standard. the presence of a small amount of technical differences compared to 1992, related to technical differences have been incorporated into the text and identifies a single vertical line in which they are involved with the provisions margin. These technical differences are given in Appendix B and its prime Because the list for reference.

For ease of use, the ISO 2881:1992 made the following editorial changes.

- a) delete the ISO 2881:1992's "Preface";
- b) Delete ISO 2881:1992 references;
- c) an increase in Appendix A;
- d) Added Appendix B.

The Standard Appendix A, Appendix B is an informative annex.

This standard was proposed by the State Tobacco Monopoly Bureau.

This standard by the National Standardization Technical Committee on Tobacco (SAC/TC144) centralized.

This standard was drafted. National Tobacco Quality Supervision and Inspection Center.

1 Scope

This standard specifies the spectrophotometric method for determination of tobacco and tobacco products in the total alkaloids.

This standard applies to processed and unprocessed tobacco and tobacco products.

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 5606.1 cigarette - Part 1. Sampling General principles GB/T 19616 batches of raw tobacco samples (GB/T 19616-2004, ISO 4874:2000, MOD) Preparation and water YC/T 31 samples of tobacco and tobacco products - Determination oven method Principle 3 Specimens in strong alkaline conditions of steam distillation, distillate spectrophotometric determination of absorbance liquid, calculate the amount of the total alkaloids in smoke Base representation.

4 Reagents

The reagents were analytical grade reagents and water should be distilled water or the same level of pure water.

4.1

sodium chloride.

4.2

Sodium hydroxide solution, 8mol/L.

4.3

sulfuric acid solution, 1mol/L.

4.4

sulfuric acid solution, 0.025mol/L.

4.5

nicotine purity not less than 98%.

5 Instruments

Common laboratory equipment and the following items.

5.1

steam distillation apparatus, according to Chapter 7 of the distillation apparatus is adjusted using nicotine (4.5), the recovery should be at least 98%. in case it can not be achieved by adjusting the distillation rate to be optimized.

For routine analysis, the use of nicotine tartrate hydride standard sample to calibrate nicotine (4.5).

5.2

photometer, to cover the wavelength range of 230nm ~ 290nm.

5.3

matching quartz cuvette, optical path length 1cm.

5.4

flask. 100mL, 250mL.

5.5

Pipette. 5mL, 10mL, 25mL.

5.6

glass funnel. a diameter of about 55mm.

5.7

Qualitative filter paper, and fast.