

ICS 65.160
CCS X 87



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

GB/T 23203.2-2008

**Cigarettes -- Determination of water in smoke condensates --
Part 2: Karl Fischer method
(English Translation)**

Issued on: December 31, 2008

Implemented on: June 1, 2009

Issued by: Standardization Administration of China

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Foreword

GB/T 23203 "Cigarettes - Determination of water in" is divided into two parts;

- Part 1. gas chromatography;
- Part 2. Karl Fischer method.

This is Part 2 GB/T 23203 of.

The partial modification of the use of ISO 10362-2:1994 "Cigarettes Total Particulate Matter Determination of moisture - Part 2. Karl Fischer method" (In English).

This section according to ISO 10362-2:1994 redrafted.

Taking into account China's national conditions, and this part of ISO 10362-2. the presence of a small amount of technical differences compared to 1994, have been incorporated into the relevant technical differences and in terms of their body covered by the margin identified by a single vertical line. Given these technical differences and their causes in Appendix A the list for reference.

For ease of use, this section made the following editorial changes.

- Delete ISO 10362-2:1994 Introduction;
- Added Appendix A "in this section and ISO 10362-2:1994 controls." Appendix A of this section is an informative annex.

This part by the State Tobacco Monopoly Bureau.

This part of the National Standardization Technical Committee on Tobacco (TC144) centralized.

This section drafted by. China National Tobacco Quality Supervision and Inspection Center.

1 Scope

GB/T 23203 provisions of this part of the total particulate matter of cigarette smoke in the Karl Fischer moisture test method. Cigarette and the main suction Flue gas flow in accordance with the general collection GB/T 19609 performed.

This section applies to the determination of total particulate matter in the water standard and non-standard suction obtained by cigarette smoke.

Note: If using the Karl Fischer method, you should use GB/T 23203.1 Determination of total particulate matter in the water. Results of water measured by gas chromatography equally Effect, but it should be described in the test report notes.

2 Normative references

The following documents contain provisions which, through reference GB/T 23203 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 16450 routine analytical smoking machine Definitions and standard conditions (GB/T 16450-2004, ISO 3308:2000, MOD) GB/T 19609 cigarettes by conventional analytical determination of total particulate matter and tar (GB/T 19609-2004 smoking machine, ISO 4387.

2000, MOD)

GB/T 23203.1 Cigarettes Determination of moisture in Part 1. gas chromatography (GB/T 23203.1-2008, ISO 10362-1:1999, MOD) Principle 3 the total particulate matter of cigarette smoke is dissolved in extracting agent, potentiometric titrator Karl Fischer method for the determination of moisture content in the sample.

4 Reagents

Use analytical grade reagents and water should be distilled water or water of equivalent purity.

4.1 Isopropanol

NOTE: Normally isopropanol containing a small amount of water, measuring a blank method specified in this part should be used, does not recommend the use of specially dried isopropanol (for example, make with molecular sieves), because particularly dry isopropanol easily absorbing moisture caused by pollution.

4.2 Karl Fischer reagent

Note 1: There are two types of Karl Fischer reagents.

- a) a single agent, the initial titer of about 5mg/mL, which titer decreased during storage;
- b) two separate reagent (solution A. methanol, pyridine, sulfur dioxide; solution B. methanol, iodine), when the volume of mixing liquid A and B was like, titre about to 3mg/mL.

Recommended b) species Karl Fischer reagent, because when unmixed, especially when stored in a refrigerator, the reagent is very stable, its titer than More suitable for this part. Of course, even when stored in a refrigerator there is a certain period of use.

Note 2: It is best to use pyridine-free Karl Fischer reagents. The use of pyridine-containing Karl Fischer reagent, the operation should be very careful.

4.3 methanol, water content less than 0.05% (mass fraction).

4.4 silica gel, freshly activated.