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SN

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

SN/T 2592.6-2011

**Determination of organotin compounds in electrical and
electronic equipment. Part 6: Inductively coupled plasma
atomic emission spectrometry**

电子电气产品中有机锡化合物的测定 第6部分：电感耦合等离子体原子发射光谱
法

(English Translation)

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Foreword

"Determination of electrical and electronic products of organic tin compounds" SN/T 2592 series of standards is divided into six parts.

- Part 1. gas chromatography;
- Part 2. Fourier transform infrared spectroscopy screening method;
- Part 3. Inductively Coupled Plasma Mass screening;
- Part 4. Liquid chromatography - mass spectrometry;
- Part 5. gas chromatography - mass spectrometry;
- Part 6. Inductively coupled plasma atomic emission spectrometry.

This section "Measurement of electrical and electronic products, organic tin compounds" SN/T 2592 series of standards Part 6.

This section drafted in accordance with GB/T 1.1-2009 requirements given.

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

This section is responsible for drafting unit. People's Republic of China Shandong Entry Inspection and Quarantine Bureau, People's Republic of China Guangdong Entry-Exit Inspection and Quarantine Bureau, People's Republic of China SZCIQ.

1 Scope

This section SN/T 2592 specifies the electrical and electronic products of organic tin by inductively coupled plasma atomic emission spectrometric method.

This section applies to the determination of electrical and electronic goods and plastic parts organotin.

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.

Laboratory use specifications and test methods GB/T 6682 Analysis

3 Method summary

After the sample microwave digestion inductively coupled plasma atomic emission spectroscopy (ICP-AES) analysis of the appropriate wavelength measured in digestion the emission intensity of liquid tin, against a standard curve to determine the concentration of tin, calculate the amount of tin in the sample.

4 Reagents and materials

Unless otherwise specified, use only analytical reagent. The water used in line with two water GB/T 6682 regulations.

4.1

nitric acid ($\rho = 1.4\text{g/mL}$). pure class distinctions.

4.2

Hydrogen peroxide (30%). pure class distinctions.

4.3

fluoroborate.

4.4

tin standard stock solution (100mg/L). 10% HCl matrix.

4.5

nitrate and fluoride boric acid mixed solution. Take 5mL nitric acid (4.1) and 1mL fluoride boric acid (4.3) in an appropriate amount of water, then diluted to 100mL.

5 Apparatus

5.1

Inductively coupled plasma atomic emission spectrometer. working gas is argon purity $\geq 99.99\%$.

5.2

Microwave Digestion System. equipped with a temperature or pressure safety control device.

5.3

Balance. a sense of the amount of 0.1mg.

5.4

Freezing mills.

6.1 Sample Preparation

The sample was cut to 3mm x 3mm or less pieces, then frozen and ground to a particle size less than 1mm powder-like stand.