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INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

SN/T 3695.1-2014

Determination of mirex in electrical and electronic products. Part 1: Gas chromatography-flame ionization detector method

电子电气产品中灭蚁灵的测定 第1部分：气相色谱-氢火焰离子化检测器法

(English Translation)

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Foreword

SN/T 3695 "electrical and electronic products, mirex determination" is divided into two parts.

--- Part 1. Gas chromatography - flame ionization detector method;

--- Part 2. Gas chromatography - mass spectrometry.

This section SN/T Section 13695 of.

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

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 Guangdong CIQ.

1 Scope

SN/T 3695 This section specifies the content of mirex GC electrical and electronic products - hydrogen flame ionization detector measures method.

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

2 Method summary

Samples with n-hexane - isopropyl alcohol (11) extraction, the extract was dried C18 SPE column purified, concentrated, constant volume, gas chromatography -Determination of hydrogen flame ionization detector, internal standard method.

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3 Reagents and materials

3.1
hexane. chromatographically pure, purity >=99%.

3.2
Isopropanol. chromatography, the purity of >=99%.

3.3
Mirex (perchlorethylene rings decane, CAS number. 2385-85-5). Purity >=97%.

3.4
octa-chlorinated naphthalene (CAS Registry Number. 2234-13-1). Purity >=97%.

3.5
hexane - isopropyl alcohol (11). n-hexane (3.1) and isopropanol (3.2) at equal volume were mixed to homogeneity.

3.6
standard stock solution (1000mg/L). Weigh accurately 25mg (accurate to 0.1mg) Mirex (3.3), placed in 25mL volumetric flask, Dissolved and set the volume of isopropyl alcohol (11) - n-hexane.

3.7
internal standard stock solution (1000mg/L). Weigh accurately 25mg (accurate to 0.1mg) octa-chlorinated naphthalene (3.4), placed in 25mL volumetric flask, Dissolved and set the volume of isopropyl alcohol (11) - n-hexane.

3.8
intermediate internal standard solution (100mg/L). accurate Pipette 5mL internal standard stock solution (3.7) in 50mL volumetric flask with n-hexane - isopropanol (11) volume.

3.9
standard solution. accurate Pipette appropriate volume of stock standard solution (3.6) with n-hexane - isopropanol serial dilution (11) and into the Appropriate volume of the internal standard solution (3.8), formulated as mirex concentrations of 1mg/L, 2mg/L, 5mg/L, 10mg/L, 20mg/L, 50mg/L, and includes eight chlorine naphthalene concentration was 10mg/L of standard working solution.

3.10
C18 SPE column. 3mL/500mg, before use with 5mL hexane - isopropyl alcohol (11) activation.

The organic phase was 3.11 membrane. 0.45μm.

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4 Instruments and equipment

4.1
Gas chromatograph. with flame ionization detector.

4.2
microwave extraction instrument. rated power not less than 200W.

4.3
vacuum rotary evaporator.

4.4
Freezer Mill.

4.5
Analysis of balance. a sense of the amount of 0.1mg.

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