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SN

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

SN/T 3650-2013

Determination of carbendazim, thiabendazole and thiophanate-methyl residues in medicinal herbs. LC-MS/MS method

药用植物中多菌灵、噻菌灵和甲基硫菌灵残留量的测定 液相色谱-质谱/质谱法

(English Translation)

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Foreword

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

Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents.

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

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

1 Scope

This standard specifies the medicinal plants carbendazim, thiabendazole and thiophanate-methyl residues by liquid chromatography - mass spectrometry/mass spectrometry methods.

This standard applies to angelica, senna, safflower, Chuanxiong, medlar and other medicinal plants or medicinal plants similar carbendazim, thiabendazole and methyl Thiophanate residues detection and confirmation. The method for the determination of carbendazim, thiabendazole and thiophanate-methyl lower limit of 0.05mg/kg.

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

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3 PRINCIPLE OF THE METHOD

Ultrasonic extraction of the sample with acetonitrile carbendazim, thiabendazole and thiophanate-methyl residues, using matrix dispersive SPE purification agent, super High performance liquid chromatography - mass spectrometry/mass spectrometer, external standard.

4 Reagents and materials

Unless otherwise indicated, the reagents used were HPLC grade water as a water line with GB/T 6682 regulations.

4.1
acetonitrile.

4.2
ammonium acetate.

4.3
formic acid.

4.4
methanol.

4.5
hydrochloric acid. AR.

4.6
Sodium chloride. AR.

4.7
anhydrous magnesium sulfate (MgSO4). AR.

4.8
N- secondary amine (PSA) sorbent. diameter of 40μm ~ 60μm.

4.9
Florisil adsorbent (Florisil). particle diameter of 120μm ~ 400μm.

4.10
octadecylsilane (ODS) bonded phase adsorbents (C18). particle diameter of 40μm ~ 60μm.

4.11
Dispersive Solid Phase Extraction agent. 150mgMgSO4 (4.7), 100mgPSA (4.8), 30mgFlorisil (4.9), 100mg C18 (4.10).

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4.12 10mmol/L ammonium acetate solution (containing 0.1% formic acid). Weigh accurately 0.16g ammonium acetate (4.2) in 200mL flask, first After a small amount of water dissolved by adding 200μL of formic acid (4.3), then with water to volume, and mix, using now.

4.13

carbendazim standard (carbendazim). CAS No. 10605-21-7, Formula C9H9N3O2, relative molecular mass 191.2, purity

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