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

SN 0147-1992

Replacing SN 0147-1992

Determination of BHC and DDT in tea for export

出口茶叶中六六六,滴滴涕残留量检验方法

(English Translation)

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Foreword

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

This standard replaces SN 0147-1992 "Test Method for Residues of BHC and DDT in Exported Tea". Compared with SN 0147-1992 in addition to the editorial changes, the main technical changes are as follows.

- Modify the sample extraction step;
- Change the packed sample column to a capillary column;
- Increased gas chromatography mass spectrometry confirmation method;
- Slight sampling steps.

1 Scope

This standard specifies the methods for the detection and confirmation of residues of BHC and DDT in export tea.

This standard applies to the detection and confirmation of residual levels of BHC and DDT in export tea.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 6682 Analysis Laboratory Water Specifications and Test Methods

3 Method summary

Residues of HCH and DDT remaining in the sample were extracted with acetone-n-hexane, and the extract was sulfonated with concentrated sulfuric acid and detected with electron capture.

Gas chromatographic determination, external standard method quantification, confirmation by gas chromatography-mass spectrometry if necessary.

4 Reagent materials

Unless otherwise stated, the reagents used were of analytical grade and water was a grade of water specified in GB/T 6682.

4.1

Acetone. Chromatographic purity.

4.2

n-hexane. chromatographic purity.

4.3

concentrated sulfuric acid. excellent grade pure.

4.4

anhydrous sodium sulfate. burning at 650 °C 4h, cooling stored in a closed container for use.

4.5

Acetone-n-hexane (1 to 1 volume ratio) solution. Measure 500 mL of acetone and 500 mL of n-hexane into a 1000 mL reagent bottle.

4.6 2% sodium sulfate solution. Dissolve 20g anhydrous sodium sulfate and dilute to 1000mL with water.

4.7

Pesticide reference materials. alpha-BHC (alpha-BHC, CAS number. 319-84-6); beta-Hexan (beta-BHC, CAS number. 319-85-7); gamma-six Sixty-six (gamma-BHC, CAS number. 58-89-9); delta-BHC (delta-BHC, CAS number. 319-86-8); p, p'-drops (p, p' -DDD, CAS no.. 72-54-8); p, p'-didicarb (p, p'-DDE, CAS number. 72-55-9); o, p'-DDT (o, p'-DDT, CAS No.. 789-02-

6); p, p'-DDT (p, p'-DDT, CAS number. 50-29-3), all with a purity of more than 98%.

4.8

Preparation of standard stock solution. Weigh approximately 0.01g (accurate to 0.0001g) of alpha-Hexan, beta-Hexan, gamma-Hexan, and delta-Six.

6. p,p'-Drip, p,p'-dip, o,p'-DDT and p,p'-DDT standard in a 10 mL volumetric flask with n-hexane Prepared as a standard stock solution of about 1000µg/mL, stored below 5°C in the dark.

4.9

Preparation of Mixed Standard Intermediate Solution. Pipette 1.00 mL of the above standard stock solution into a 100 mL volumetric flask and dilute with n-hexane.

Release to scale, now with the current use.

5 Instruments and Equipment

5.1

Gas Chromatograph. Equipped with an Electron Capture (ECD) detector.