

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

SN 0604-1997

Replacing SN 0604-1996

**Determination of duren residue in vegetable for export. GC-MS
method**

(English Translation)

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Foreword

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

This standard replaces SN 0604-1996 "durene residues in vegetables for export." this standard compared with SN 0604-1996, in addition to editorial changes outside the main technical changes are as follows.

- Changing the name of the standard;
- Apply matrix detection range expanded to cabbage, tomatoes, green beans, broccoli;
- Modify the sample pretreatment methods, pretreatment methods to extract homogeneous solid - phase extraction (SPE);
- Modify the sample detection method, the detection method to gas chromatography - mass spectrometry;
- Increased durene confirmation.

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 Zhejiang Exit Inspection and Quarantine.

1 Scope

This standard specifies the vegetables for export durene residues by gas chromatography - mass spectrometry method.

This standard applies to cabbage, tomatoes, green beans, broccoli durenene residues measured and confirmed.

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

Sample remaining durenene by hexane extraction, solid phase extraction (SPE) purification, gas chromatography - mass spectrometer and validation, external standard method or Internal standard.

4 Reagents and materials

Except where noted, all reagents were of analytical grade water as a water GB/T 6682 regulations.

4.1

hexane. chromatographically pure.

4.2

sodium chloride.

4.3

Standard. durenene (durenene), CAS No. 95-93-2, purity $\geq 98.0\%$.

4.4

internal standard. durenene isotope internal standard (1,2,4,5-tetramethylbenzene-3,6-d₂, CAS No. 1859-01-4).

4.5

standard stock solution. accurately weighed amount of durenene standard substance, n-hexane formulated into 100 μ g/mL standard stock solution, to avoid Light stored at 0 °C ~ 4 °C.

4.6

durenene isotope internal standard stock solution. accurately weighed amount of durenene isotope internal standard reference material, which is equipped with n-hexane Made 1 μ g/mL standard stock solution, stored in the dark at 0 °C ~ 4 °C.

4.7

standard solution. according to testing requirements before use with n-hexane diluted stock standard solution into a standard working solution of appropriate concentration is required when added to a certain concentration of the internal standard solution (4.6). Using now.

4.8

Florisil solid-phase extraction column (6mL, 500mg). n-hexane before use with 5mL activation.

5 Apparatus

5.1

GC - MS.

5.2

Multifunctional Organization mashed machines.

5.3

rotary evaporator.

5.4

High-speed homogenizer. not less than 10000r/min.