

ICS 67.080
CCS B 31

SN

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

SN 0192-1993

Replacing SN 0192-1993

**Determination of bromopropylate residue in fruits for export
(English Translation)**

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and Quarantine**

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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 0192-1993 "Test method for bromine ester residues in exported fruits".

Compared with SN 0192-1993, in addition to editorial changes, the main technical changes are as follows.

- Increased sample matrix;
- Modified the sample extraction step;
- Modified the sample purification step;
- Change the sample determination packed column to a capillary column;
- Added gas chromatography mass spectrometry confirmation method;
- Sampling steps were omitted.

1 Scope

This standard specifies the detection and confirmation methods for bromine ester residues in fruits.

This standard applies to the detection and confirmation of bromo oxime residues in apples, cherries, lemons, strawberries, pineapples, grapes and watermelons.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 6682 Analytical laboratory water specifications and test methods

3 Method summary

The residual bromo oxime ester in the sample is extracted with acetonitrile, and after centrifugation and centrifugation, the supernatant is purified by a solid phase extraction column with electron capture detection.

Gas chromatographic determination of the detector, external standard method quantification, if necessary, confirmed by gas chromatography-mass spectrometry.

4 Reagent materials

The reagents used were of analytical grade unless otherwise stated.

4.1

Acetonitrile. Chromatographically pure.

4.2

Toluene. chromatographically pure.

4.3

n-hexane. chromatographically pure.

4.4

Sodium chloride.

4.5

anhydrous sodium sulfate. burned at 650 ° C for 4 h before use, cooled and stored in a desiccator.

4.6

Acetonitrile-toluene solution (3 1, volume ratio). Take.200 mL of toluene, add 600 mL of acetonitrile, shake and set aside.

4.7

Bromopropylate (C₁₇H₁₆Br₂O₃, CAS No. 8181-80-1) Standard. Purity greater than or equal to 98%.

4.8

Bromine oxime standard stock solution. Accurately weigh 0.01g (accurate to 0.0001g) bromo oxime standard in 10mL volumetric flask, use the n-hexane was dissolved to prepare

a standard stock solution having a concentration of 1.0 mg/mL, and stored at 4 ° C for a shelf life of 3 months.

4.9

bromodecyl ester standard intermediate solution. accurately transfer 1mL standard stock solution to a 10mL volumetric flask, dilute to the scale with n-hexane A standard solution with a concentration of 100 µg/mL is now available.

4.10

Matrix standard working solution. Add a certain volume of bromohydrazone standard solution to the appropriate amount of sample blank matrix extract and mix.

Formulated as a matrix standard working solution. The matrix standard working solution should be ready for use.

4.11

Graphitized carbon-amino solid phase extraction column. Graphitized carbon and aminopropyl filler each 0.5g, 6mL, or equivalent.

4.12

anhydrous sodium sulfate column. 7.5 cm x 1.5 cm (id) glass column, containing 5 cm high anhydrous sodium sulfate.

4.13

Organic phase filter. 0.45 µm.

5 Instruments and equipment

5.1

Gas Chromatograph. equipped with an electron capture (ECD) detector.