

ICS 67.160.10
CCS X 60

SN

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

SN 0285-1993

Replacing SN 0285-1993

**Determination of ethyl carbamate residues in alcohol for export.
GC-MS
(English Translation)**

Issued on: January 1, 1970

Implemented on: January 1, 1970

Issued by: General Administration of Customs

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Foreword

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

This standard replaces SN 0285-1993 "urethane residues in the export of spirits." this standard compared with SN 0285-1993, the main technical changes are as follows.

--- Original standard "export of spirits in urethane residues in" name has been modified;

--- Original standard detection range was extended by the detected object extension distilled spirits, wine to the distillation of wine, rice wine, red wine, beer Wine, brandy;

--- Methods for sample pre-treatment has been improved, with matrix solid phase dispersion technique for sample purification;

--- Omitted sampling procedure.

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 distilled spirits, wine, liquor preparation of ethyl carbamate residues by gas chromatography - mass spectrometry method.

This standard applies to distilled spirits, wine, red wine, beer, cognac urethane residues in

the detection and confirmation.

2 Method summary

Samples urethane extracted with dichloromethane, acetonitrile - hexane SPE purification and matrix liquid-liquid partition, gas Chromatography - mass spectrometry detection, external standard.

3 Reagents and materials

Unless otherwise indicated, the reagents used were of analytical grade, water is distilled or deionized water.

3.1

dichloromethane. chromatography.

3.2

hexane. chromatographically pure.

3.3

acetonitrile. chromatography.

3.4

Sodium chloride. 650 °C, burning 4h.

3.5

The organic phase filter. 0.45µm.

3.6

propyl ethylene diamine -N- (PSA) packing. size 40µm ~ 63µm.

3.7

standard urethane material (ethylcarbamate, C₃H₇NO₂, CAS number. 51-79-6). purity of greater than or equal to 99.0%.

3.8

urethane standard solution. Accurately weigh an adequate amount of urethane standard with acetonitrile dubbed the concentration of 100µg/mL Standard stock solution. Needed with acetonitrile diluted to the appropriate concentration of the working standard solution. Standard stock solution at 0 °C ~ 4 °C refrigerator Mediator Deposit, valid for 12 months; standard working solution stored at 0 °C ~ 4 °C refrigerator for a period of six months.

4 Instruments and equipment

4.1

Gas chromatography - mass spectrometry. source with electron impact (EI).

4.2

Vortex device.

4.3

rotary evaporator.

4.4

centrifuge.

4.5

Balance. a sense of volume, respectively 0.01g and 0.0001g.

5.1 Preparation of sample preparation

Take representative samples of about 500g, it was poured into the container and mix well, reduce the separation of 100g, as a sample, loaded into a clean container, sealed,