

ICS 67.050
CCS X 04

SN

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

SN/T 1590-2014

Replacing SN/T 1590-2005

**Determination of sudan ??sudan ??sudan ??Sudan ??in the
foodstuffs for import and export**

进出口食品中苏丹I、II、III、IV的测定

(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. Distribution of this document Institutions do not assume the responsibility to identify these patents.

Instead of the standard SN/T 1590-2005 "Sudan I, II, III, IV detection methods imported and exported food." this standard compared with SN/T 1590-2005, the main technical changes are as follows.

- Detected by the three kinds of substrates to six kinds;
- Improved extraction and purification process;
- Measured by the lower limit of 1mg/kg revised to 10µg/kg.

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

This standard was drafted. People's Republic of China Hebei Exit Inspection and Quarantine.

1 Scope

This standard specifies the import and export of food in Sudan I, Sudan II, Sudan III, Sudan IV liquid chromatography and liquid chromatography - mass spectrometry/mass Confirmation of the spectrum.

This standard applies to chili, chili sauce, egg, coated peanuts, sausages and candy Sudan I, Sudan II, Sudan III, IV detection Sudan and confirmation.

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 Principle 3 Using ethyl acetate or acetonitrile - ethyl acetate extract of Sudan dyes in food by gel permeation chromatography (GPC), eluted with with diode Array detector by high performance liquid chromatograph, external standard. Positive samples by liquid chromatography - mass spectrometry/mass spectrometry confirmation.

4 Reagents and materials

Unless otherwise specified, all reagents were of analytical grade water as a water GB/T 6682 regulations.

4.1

ethyl acetate.

4.2

cyclohexane.

4.3

Methanol. HPLC fractions.

4.4

acetonitrile. HPLC fractions.

4.5

over anhydrous sodium sulfate.

4.6

formic acid. 99%, HPLC fractions.

4.7

ethyl acetate - acetonitrile (1:1 volume). Equal volumes of ethyl acetate (4.1) and acetonitrile (4.4) were mixed uniformly.

4.8

ethyl acetate - cyclohexane (1:1, volume ratio). Equal volumes of ethyl acetate (4.1), and cyclohexane (4.2) were mixed uniformly.

4.9

HPLC mobile phase. acetonitrile - water (9:10, volume ratio). Take 50mL of acetonitrile and 450mL ultrapure water mix.

4.10

HPLC-MS/MS mobile phase. formic acid (0.1%). amount of 1.0mL of formic acid (4.6) water volume to 1000mL; formic acid - A Alcohol solution (0.1%). amount of 1.0mL of formic acid with methanol (4.3) and dilute to 1000mL.

4.11

Standard substances. Sudan I, Sudan II, Sudan III, Sudan IV Standards (CAS numbers are 842-07-9, 3118-97-6, 85-86-9, 85-83-6). purity of greater than or equal to 98%, stored in a refrigerator stored.

4.12

standard stock solution. Weigh Sudan I, Sudan II, Sudan III, IV standard Sudan each 10mg (accurate to 0.1mg), acetic acid Ethyl ester was dissolved and set the volume to 100mL, formulated as standard stock solution 100µg/mL of. This solution was below 4 °C stored.

4.13

intermediate mixed standard solution. accurate Pipette Sudan I, Sudan II, Sudan III, Sudan IV standard stock solution of each 1mL to 100mL capacity Bottle with methanol to volume, formulated at a concentration of 1µg/mL, the following 4 °C stored.