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SN

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

SN/T 1045.2-2010

Replacing SN/T 1045.2-2002

**Determination of banned azo colourants in dyed textiles and
leather products for import and export. Part 2: Gas
chromatography/mass spectrography method**

进出口染色纺织品和皮革制品中禁用偶氮染料的测定 第2部分：气相色谱/质谱法
(English Translation)

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Foreword

SN/T 1045 "Importers dyed textiles and leather products - Determination of banned azo" is divided into three parts.

- Part 1. liquid chromatography;
- Part 2. Gas chromatography/mass spectrometry;
- Part 3. Gas Chromatography.

This section SN/T 1045 Part 2.

This part is the SN/T 1045.2-2002 "Importers dyed textiles and leather products banned azo gas test method Amendment chromatography/mass spectrometry, "the.

This section compared with the SN/T 1045.2-2002, the main differences are as follows.

--- Increasing the types of detectable aromatic amines, can detect 23 kinds of aromatic amines. The increase is three kinds.

(1) 2,4-dimethylaniline (2,4-Xylidine);

(2) 2,6-dimethylaniline (2,6-Xylidine);

--- Extraction solvent ether to methyl tert-butyl ether;

--- Reagent eleven to eleven tungsten potassium silicate sodium silicate;

--- Final volume is defined as 2mL solvent methyl t-butyl ether;

--- Delete the original table 2 aromatic amines selected ion analysis conditions and Appendix C aromatic amines spectrum.

This section Purifying Unlike other standards or methods when using other standards or test results obtained by the method has a strong matrix interference, no when the method is accurate qualitative and quantitative, it recommended adopting the standard method.

This section in Appendix A, Appendix C is a normative appendix, Appendix B, Appendix D and Appendix E is an informative annex.

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

1 Scope

SN/T 1045 provisions of this part of the dyed textiles and leather products 23 kinds of banned aromatic amines (see Appendix A) content of gas chromatography Spectrum/MS detection method.

This section applies to import and export textile dyeing (including cotton, hemp, silk, wool and chemical fiber) and dyed leather 23 kinds of banned aromatic amines Detection.

2 Normative references

The following documents contain provisions which, through reference SN/T 1045 and become part of the provisions of this section. For dated references, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encourage the agreement on this section Whether the parties can study the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

Laboratory use specifications and test methods GB/T 6682 Analysis SN/T 1045.1 Importers dyed textiles and leather products - Determination of banned azo Part 1. liquid chromatography Principle 3 in citrate buffer (pH = 6.0) in the sample is reduced azo dyes sodium dithionite to the corresponding aromatic amine intermediate.

With methyl tert-butyl ether - methylene chloride solution in a mixed solvent extraction of aromatic amines. Extract aromatic amine with hydrochloric acid and sodium tungstate eleven After the solution was acidified to a salt concentration, the residue was washed with an organic solvent. After alkalizing to free the aromatic amine was extracted with methyl tert-butyl ether and dilute with in Gas Chromatography/Mass Spectrometry.

4 Reagents

Unless otherwise specified, the reagents were of analytical grade, water use in line with two water GB/T 6682 regulations.

4.1

hexane. chromatographically pure.

4.2

methyl tert-butyl ether. chromatography (CAS Number. 1634-04-4).

4.3

dichloromethane. chromatography.

4.4

Nitrogen. more than 99.99% purity.

4.5

hydrochloric acid solution. 1mol/L.

4.6

hydrochloric acid solution. 4mol/L.

4.7

Sodium hydroxide solution. 5mol/L.

4.8

citrate buffer solution. 0.06mol/L, pH = 6.0. Citric acid and sodium hydroxide weighed 12.526g 6.320g, dissolved 1000mL water.

4.9

dithionite solution.200mg/mL, the time is now equipped with.

4.10

Extraction solvent. methyl tert-butyl ether (4.2) and 3 parts of dichloromethane (4.3) 1 shake mix.

4.11

eleven tungsten silicate ($\text{Na}_8\text{SiW}_{11}\text{O}_{39} \cdot \text{like H}_2\text{O}$). homemade. The 91g of sodium tungstate ($\text{Na}_2\text{WO}_4 \cdot 2\text{H}_2\text{O}$) and 7.37g silicic acid Sodium ($\text{Na}_2\text{SiO}_3 \cdot 9\text{H}_2\text{O}$) were dissolved in 150mL of hot water, placed on a magnetic stirrer, while heating and stirring, was added dropwise 98mL hydrochloric acid solution (4.6), set on stove, cover pan heating surface micro-boiling 1h. Then filtered, saturated sodium chloride was added to the filtrate