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

SN/T 3694.1-2014

**Determination of perfluorinated alkyl compounds in industrial
products for import and export. Part 1: Osmetics. LC-MS/MS
method**

(English Translation)

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Foreword

SN/T 3694 "Importers perfluoroalkyl compounds in industrial measurement" is divided into 14 parts.

- Part 1. Cosmetic liquid chromatography - tandem mass spectrometry;
- Part 2. extinguishant liquid chromatography - tandem mass spectrometry;
- Part 3. lubricant liquid chromatography - tandem mass spectrometry;
- Part 4. Paraffin liquid chromatography - tandem mass spectrometry;
- Part 5. detergent liquid chromatography - tandem mass spectrometry;
- Part 6. Ink liquid chromatography - tandem mass spectrometry;
- Part 7. paint and coatings liquid chromatography - tandem mass spectrometry;
- Part 8. Electronic and Electrical Products liquid chromatography - tandem mass spectrometry;
- Part 9. Textiles liquid chromatography - tandem mass spectrometry;
- Part 10. Adhesive liquid chromatography - tandem mass spectrometry;
- Part 11. Leather liquid chromatography - tandem mass spectrometry;
- Part 12. polish liquid chromatography - tandem mass spectrometry;
- Part 13. Food contact materials by liquid chromatography - tandem mass spectrometry;
- Part 14. plastic liquid chromatography - tandem mass spectrometry.

This section is SN/T Section 13694 of.

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

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

1 Scope

SN/T 3694 This section provides liquid chromatography cosmetics perfluoroalkyl compounds - tandem mass spectrometry.

This section applies to cosmetics perfluorinated acid, PFOA, perfluorooctanoic azelaic acid, perfluoro decanoic acid, perfluorinated undecanoic acid, lauric acid perfluorinated, perfluorobutane Alkyl sulfonic acid, perfluorohexane sulfonate, PFOS, perfluorinated sulfonic acid decane determination.

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

Liquid sample using methanol as solvent ultrasonic extraction, powder, emulsion samples using Accelerated Solvent Extractor (ASE) extraction. The extract was Tandem mass spectrometer, external standard - solid phase extraction (SPE), liquid chromatography mixed weak anion exchanger.

4 Reagents and materials

Unless otherwise specified, the reagents were HPLC grade water to a water GB/T 6682 regulations.

4.1

methanol.

4.2

formic acid (content 50%, volume ratio).

4.3

ammonia (content of 25% by volume). pure class distinctions.

4.4

Sodium acetate. pure class distinctions.

4.5 0.1% formic acid solution (by volume). Take 0.2mL of formic acid (4.2), diluted with water and set the volume to 100mL.

4.6

methanol and 0.1% formic acid (73 volume). Measure 70mL methanol (4.1), 30mL of 0.1% formic acid (4.5).

4.7 2% formic acid solution (by volume). Take 4mL formic acid (4.2), diluted with water and set the volume to 100mL.

4.8 0.1% ammonia in methanol (by volume). Take 0.4mL aqueous ammonia (4.3), diluted with methanol (4.1) and dilute to 100mL.

4.9 25mmol/L sodium acetate solution. take 2.05g of sodium acetate (4.4), dissolved in water and dilute to 1000mL.

4.10

perfluorinated acid, PFOA, perfluorooctanoic azelaic acid, perfluoro decanoic acid, perfluorinated undecanoic acid, perfluorinated lauric acid, sodium perfluorobutane, perfluorohexane Sulfonate, perfluorooctane sulfonate, perfluoro decane sulfonate standard substance. purity of $\geq 98\%$. Standard Substance details are shown in Table A.1.

4.11

standard stock solution. accurately weighed standard substance (accurate to 0.1mg, to perfluorinated compounds acid radical dollars), with methanol dissolved quantitatively transferred Move 100mL flask, constant volume of methanol, shake, were formulated as a standard stock solution.

4.12

standard solution. required standard working solution was diluted with a blank matrix formulation at appropriate concentrations using now.

4.13

Mixed weak anion exchange solid phase extraction column. OasisWAX3mL, 60mg or equivalent person. Before using successively with 3mL 0.1% ammonia methanol solution (4.8), 3mL water pretreatment.

4.14

diatomaceous earth. 80 mesh to 120 mesh.