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

GB/T 29493.7-2013

**Determination of harmful substances in textile dyeing and
finishing auxiliaries -- Part 7: Determination of monomeric
diisocyanate in polyurethane coating agent**

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Foreword

GB/T 29493 "textile dyeing and finishing auxiliaries of harmful substances Determination" is divided into nine sections.

--- Part 1. Determination of polybrominated biphenyls and polybrominated diphenyl ethers by gas chromatography - mass spectrometry;

--- Part 2. perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) High performance liquid chromatography - mass

Spectroscopy;

--- Part 3. organotin compounds by gas chromatography - mass spectrometry;

--- Part 4. polycyclic aromatic compounds (PAHs) by gas chromatography - mass spectrometry;

--- Part 5. Determination of the formaldehyde content of the emulsion polymer free;

--- Part 6. polyurethane prepolymer isocyanate determination of the ester group content;

--- Part 7. polyurethane coating finishing agent diisocyanate determination ester monomer;

--- Part 8. Determination of acrylic products in the residual monomers;

--- Part 9. Determination of acrylamide.

This is Part 7 GB/T 29493 of.

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

This section uses the translation method identical with ISO 10283.2007 "Paints and varnishes polyurethane resin binder diisocyanate single

Determination of "body.

For ease of use, this section made the following editorial changes.

--- With "this Part" instead of "this International Standard";

--- Deleted international standards foreword.

This part is proposed by the China Petroleum and Chemical Industry Association.

This part of the National Standardization Technical Committee of dye auxiliaries Technical Committee (SAC/TC134/SC1) centralized.

Drafting this Part. Zhejiang Chuan Co., Ltd., Shanghai Intertek Testing Services Ltd., Donghua University.

1 Scope

GB/T 29493 provisions of this part of the determination of a diisocyanate monomer content by gas chromatography method.

This section applies to the toluene diisocyanate (TDI), hexamethylene diisocyanate (HDI), diphenyl methane diisocyanate

(MDI), isophorone diisocyanate (IPDI), and the diisocyanate monomer other type of synthetic material used to make polyurethane coating

Or a resin solution prepared diisocyanate determination of the ester monomer content.

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.

GB/T 3186-2006 Paints, varnishes and raw materials for paints and varnishes - Sampling (ISO 15528.2000, IDT)

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1

Isocyanate resin isocyanateresin

Polyurethane resin polyurethaneresin

Composition containing isocyanate (NCO) an aromatic group, an aliphatic or alicyclic isocyanate prepared solvent or solvent-free synthesis

Resin.

Note. This part of the isocyanate resin comprising.

--- By any diisocyanate, particularly toluene diisocyanate (TDI), hexamethylene diisocyanate (HDI), diphenyl methane diisocyanate

(MDI), isophorone diisocyanate (IPDI) prepared and containing urethane and/or biuret and/or isocyanate groups of isocyanate

Resin;

--- Isocyanate resins by the isocyanate resin prepared mixture.

Principle 4

In tetradecane as internal standard to measure diisocyanate monomer content of isocyanate resin by gas chromatography. When diisocyanate

When less volatile monomers, anthracene as the internal standard.

5 Reagents and solutions

Unless otherwise specified, use only recognized as analytical reagents.

5.1 ethyl acetate, dried (use of molecular sieve dehydration 0.5nm), no alcohol (ethanol content $< 200 \times 10^{-6}$).