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

GB/T 38403-2019

**Leather and fur - Chemical tests - Determination of the
preservative (TCMTB, PCMC, OPP, OIT) content: Liquid
chromatography**

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Foreword

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

This standard uses the redrafting method to modify the ISO 13365..2011 "liquid chromatography for leather chemical test

Preservative (TCMTB, PCMC, OPP, OIT) content.

Compared with ISO 13365..2011, this standard has more structural adjustments. Appendix A gives the standard and ISO 13365..2011.

List of chapter number comparisons.

There are technical differences between this standard and ISO 13365..2011. Appendix B gives a list of corresponding technical differences and their causes.

For ease of use, the following editorial changes have been made to this standard.

--- The standard name was changed to "Determination of mildew inhibitors (TCMTB, PCMC, OPP, OIT) in leather and fur chemical tests. liquid phase

Chromatography ";

--- Deleted the note in ISO 13365..2011 "1 Scope";

--- Informative appendix C "Chinese and English names of four antifungal agents, CAS number and other related information" and informative appendix D "four

HPLC-DAD chromatograms and spectrograms of mold inhibitors ".

This standard is proposed by the China Light Industry Federation.

This standard is under the jurisdiction of the National Leather Industry Standardization Technical Committee (SAC/TC252).

This standard was drafted. Zhejiang Fangyuan Inspection Group Co., Ltd., Jiaxing College, Zhejiang Tongtianxing Group Co., Ltd., China

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1 Scope

This standard specifies benzothiocyanate (TCMTB), 4-chloro-3-methylphenol (PCMC), and o-phenylphenol in leather, fur, and their products.

(OPP), N-octyl isothiazolinone (OIT) four antifungal agents by liquid chromatography.

This standard is applicable to the determination of TCMTB, PCMC, OPP, OIT four kinds of antifungal agents in various leathers, furs and their products.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 6682 Analytical laboratory water specifications and test methods (GB/T 6682-2008, ISO 3696. 1987, MOD)

QB/T 1267 Sampling site for fur chemical, physical and mechanical, color fastness test (QB/T 1267-2012, ISO 2418.

2002, MOD)

Preparation of QB/T 1272 fur chemical test samples (QB/T 1272-2012, ISO 4044..2008, MOD)

QB/T 1273 Determination of volatiles in fur chemical test (QB/T 1273-2012, ISO 4684..2005, MOD)

QB/T 2706 Leather chemical, physical, mechanical and color fastness test samples (QB/T 2706-2005, ISO 2418.

2002, MOD)

QB/T 2716 Preparation of leather chemical test samples (QB/T 2716-2018, ISO 4044..2008, MOD)

QB/T 2717 Determination of volatiles in leather chemical test (QB/T 2717-2018, ISO 4684..2005, MOD)

3 Principle

Under the action of ultrasound, the antifungal agent in the sample was extracted with acetonitrile, and the extract was purified by a filtration membrane, and then subjected to liquid chromatography-purp

External (HPLC-UV) determination.

4 Reagents and materials

Unless otherwise specified, all reagents used are analytical grade.

4.1 Water. HPLC test water should meet the requirements of GB/T 6682 level 1 water, and other test water should meet the requirements of GB/T 6682 level 3

Water regulations.

4.4 TCMTB, PCMC, OPP, OIT standards. TCMTB, OIT purity $\geq 99.7\%$, PCMC, OPP purity $\geq 99.5\%$

Note. For the information and spectrum of the four antifungal standards, see Appendix C and Appendix D, respectively.

4.5 Standard stock solution. Weigh appropriate amounts of 4 standards, and use acetonitrile (4.2) to prepare a mixed standard with a concentration of 100 mg/L.

Quasi-stock solution.