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

GB/T 22933-2022

Replacing GB/T 22933-2008

**Leather and fur - Chemical tests - Determination of free fatty
acid**

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules for Standardization Documents" drafting.

This document replaces GB/T 22933-2008 "Determination of Free Fatty Acid in Chemical Tests of Leather and Fur", and GB/T 22933-

Compared with.2008, except for structural adjustment and editorial changes, the main technical changes are as follows.

--- Deleted references to "GB/T 601" and "QB/T 2707", added "QB/T 1267" and "QB/T 1272"

References to "QB/T 1273", "QB/T 1276" and "QB/T 2717" (see Chapter 2, Chapter 2 of the.2008 edition);

--- Added "terms and definitions" (see Chapter 3);

--- Added the expression of carbon tetrachloride extraction of fur in "principle" (see Chapter 4);

--- It is clear that the concentration of ethanol is the volume fraction (see 5.3);

--- Changed the concentration of sodium hydroxide standard solution (see 5.4, 4.3 of the.2008 edition);

---Change "water bath" to oven, and change the temperature range requirements (see 6.2, 5.2 of the.2008 edition);

--- Added the sampling procedure for fur (see 7.1);

---Deleted the provisions on air conditioning of the sample (see 6.3 of the.2008 edition);

--- Added requirements for symmetrical sample mass deviation (see 8.1);

- Changed the drying method of the extraction bottle (see 8.1, 7.2 of the.2008 edition);
- Increased the arbitration provisions for the extraction method of leather samples (see 8.1);
- Added the extraction operation of the fur sample (see 8.1);
- Changed the processing method of "when the color of the extract is darker" (see 8.2, 7.5 of the.2008 edition);
- The calculation result was changed to the absolute dry mass of the sample, and the calculation formula was changed (see 9.1, Chapter 8 of the.2008 edition);
- Changed the content of the test report (see Chapter 10, Chapter 10 of the.2008 edition).

This document is modified to adopt ISO 4048.2018 "Leather Chemical Tests Determination of Dichloromethane Extract and Free Fatty Acid Content".

Compared with ISO 4048.2018, this document has a lot of structural adjustments. Appendix A shows the differences between this document and ISO 4048.2018

A list of chapter numbers.

Compared with ISO 4048.2018, this document has many technical differences. Appendix B gives a list of corresponding technical differences and their reasons.

The following editorial changes have been made to this document.

- The name of the standard was changed to "Determination of Free Fatty Acids in Chemical Tests of Leather and Fur";
- Deleted the informative Appendix B.

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

1 Scope

This document describes a method for the determination of free fatty acid content in leather and fur skin panels.

This document applies to the determination of free fatty acid content in various types of leather and fur skin panels.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

For documents, only the version corresponding to the date is applicable to this document;

for undated reference documents, the latest version (including all amendments) is applicable to

this document.

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

GB/T 39364 Sampling locations for chemical, physical, mechanical and color fastness tests of leather (GB/T 39364-2020, ISO 2418.

2017, MOD)

QB/T 1267 Fur chemical, physical and mechanical, color fastness test sampling location (QB/T 1267-2012, ISO 2418.

2002, MOD)

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

QB/T 1273 Determination of volatile matter in fur chemical test (QB/T 1273-2012, ISO 4684:2005, MOD)

QB/T 1276 Determination of carbon tetrachloride extract in chemical test of fur (QB/T 1276-2012, ISO 4048:2008,

MOD)

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

QB/T 2717 Determination of volatile matter in leather chemical tests (QB/T 2717-2018, ISO 4684:2005, MOD)

QB/T 2718 Determination of dichloromethane extract in leather chemical test (QB/T 2718-2018, ISO 4048:2008,

MOD)

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1

free fatty acid content freefattyacidcontent

With oleic acid as the reference substance, the content of free fatty acids in the extract is determined through the operating conditions specified in this document.

4 principles

Extract the sample with dichloromethane (extract the fur sample with carbon tetrachloride), dissolve the extract in a mixed solvent of ether-ethanol, and use

Sodium hydroxide solution titration, using phenolphthalein as an indicator to judge the titration end point, according to the amount of sodium hydroxide solution consumed, with oleic acid as a reference,

Calculate the content of free fatty acids.