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

GB/T 8292-2025

Replacing GB/T 8292-2008

**Natural rubber latex concentrate - Determination of volatile fatty
acid number**

浓缩天然胶乳 挥发脂肪酸值的测定

(English Translation)

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Table of Contents

Preface
1 Scope
2 Normative references
3 Terms and Definitions
4 Principle
5 Reagents
6 Instruments
7 Sampling
8 Test Step
9 Results show
10 Precision
11 Test Report
Appendix A (Informative) Precision
References

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 8292-2008 "Determination of volatile fatty acid value of concentrated natural rubber latex" and is consistent with GB/T 8292-2008.

In addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) The scope has been changed (see Chapter 1, Chapter 1 of the 2008 edition);
- b) The definition of the term "volatile fatty acid value" has been changed (see 3.1, 3.1 of the 2008 edition);
- c) Added the requirement of re-calibrating barium hydroxide standard titration solution, polysiloxane defoamer and calcium hydroxide saturated solution (see 5.3, 5.5 and 5.6);
- d) Added qualitative filter paper and normative reference document GB/T 1914 (see 6.6) and air pump (see 6.7, 8.2);

- e) The test steps have been changed (see Chapter 8, Chapter 8 of the 2008 edition);
- f) Added the description of indicator color change (see 8.2);
- g) Added a chapter on "Precision" (see Chapter 10);
- h) Added "Test date" to "Test report" [see f) in Chapter 11].

This document is modified to adopt ISO 506:2020 "Determination of volatile fatty acids value of concentrated natural rubber latex".

The technical differences between this document and ISO 506:2020 and their reasons are as follows.

--- Added the applicable scope of the document (see Chapter 1) to adapt to the provisions of GB/T 1.1-2020;

--- Added the requirement that the barium hydroxide standard titration solution should be used on the same day of calibration to better meet the test conditions (see 5.3);

--- Added normative reference document GB/T 1914 (see 6.6) to adapt to the provisions of my country on qualitative filter paper;

--- ISO 123 (see Chapter 7) has been replaced by the normative reference GB/T 8290 to adapt to the provisions of my country on latex sampling;

--- ISO 124 (see 8.1) has been replaced by the normative reference GB/T 8298 to adapt to the determination of total solid content of latex in my country.

Regulation;

--- ISO 125 (see 8.1) has been replaced by the normative reference GB/T 8299 to adapt to the measurement of dry rubber content in concentrated natural rubber latex in my country.

Certain provisions;

--- Added the use of burette in the test procedure (see 8.2) to better meet the test conditions.

The following editorial changes were made to this document.

--- Added CAS number of reagents (see Chapter 5);

--- Deleted the introductory words of Chapter 6 (see Chapter 6 of ISO 506:2020);

--- According to the results of the reorganized interlaboratory test, the precision data were changed (see Appendix A).

1 Scope

This document describes a method for the determination of the volatile fatty acid value of natural rubber latex concentrate.

This document applies to concentrated natural rubber latex derived from the *Hevea brasiliensis* tree.

This document does not necessarily apply to natural latex from sources other than *Hevea brasiliensis*.

Artificial rubber dispersion or synthetic latex.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 1914 Chemical analysis filter paper GB/T 8290 Latex Sampling (GB/T 8290-2021, ISO 123:2001, MOD) GB/T 8298 Determination of total solid content of latex (GB/T 8298-2017, ISO 124:2014, MOD) GB/T 8299 Determination of dry rubber content of concentrated natural rubber latex (GB/T 8299-2008, ISO 126:2005, IDT)

3 Terms and definitions

The following terms and definitions apply to this document.

The number of grams of potassium hydroxide equivalent to the volatile fatty acids in latex containing 100 g of total solids.

Note: If some substances that produce volatile acids when acidified with sulfuric acid have been added to the latex, the volatile fatty acid value will be higher. It does not represent the volatile fatty acids without calibration.

content.

4 Principle

After the sample is coagulated with ammonium sulfate solution, a portion of the whey separated is acidified with sulfuric acid solution.

The distillate is titrated with a standard barium hydroxide solution to determine the volatile fatty acid value in the sample.

5 Reagents

Use only confirmed analytical grade reagents and distilled water or water of equivalent purity.

5.1

Ammonium sulfate (CAS 7783-20-2) solution, approximately 30% by mass.