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

GB/T 45139-2024

**Determination of bergapten content in essential oils of bergamot,
lemon, bitter orange and lime(fully or partially reduced in bergapten) -
High-performance liquid chromatography**

香柠檬、柠檬、苦橙和白柠檬精油（已全部除去或部分降低5-甲氧基补骨脂素）
中5-甲氧基补骨脂素含量的测定 高效液相色谱法

(English Translation)

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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 is equivalent to ISO 7358:2021 "Bergamot, lemon, bitter orange and lime essential oils, with 5-methoxy Determination of 5-methoxypsoralen content by high performance liquid chromatography (HPLC).

The following minimal editorial changes were made to this document.

--- To coordinate with the existing standards, the name of the standard was changed to "Bergamot, lemon, bitter orange and white lime essential oils (all removed or partially reduced Determination of 5-methoxypsoralen content in 5-methoxypsoralen by high performance liquid chromatography.

1 Scope

This document describes the determination of the total or partial removal of 5-methoxy

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.

Note: GB/T 14454.1 Preparation of fragrance samples (GB/T 14454.1-2008, ISO 356:1996, MOD)

Note. GB/T 27579 General method for analysis of essential oils by high performance liquid chromatography (GB/T 27579-2011, ISO 8432:1987, IDT)

3 Terms and definitions

There are no terms or definitions that require definition in this document.

ISO and IEC maintain terminology databases for standardization at the following addresses.

4 Principle

The content of 5-methoxypsoralen in the sample is determined by diluting the sample and performing gradient elution with normal phase or reverse phase high performance liquid chromatography.

The ions were measured by diode array ultraviolet detector using internal or external standards.

5 Reagents

Use only analytical grade reagents.