

ICS 71.100.60

CCS Y 41



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

GB/T 45045-2024

**Determination of 13 restricted fragrance substances in
fragrance compound-Gas chromatography-mass spectrometry
method**

日用香精中十三种限用香料的测定 气相色谱-质谱法

Issued on: November 28, 2024

Implemented on: June 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Foreword
1 Scope
2 Normative references
3 Terms and definitions
4 Principle
5 Reagents and Materials

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.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by China Light Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Flavors and Fragrances and Cosmetics (SAC/TC257).

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Determination of Thirteen Restricted Fragrances in Daily Fragrances Gas chromatography-mass spectrometry

1 Scope

This document describes a method for the determination of thirteen restricted fragrances in daily fragrances by gas chromatography-mass spectrometry.

This document is only applicable to liquid daily-use fragrances with dipropylene glycol, isopropyl myristate, triacetin as solvent or without solvent.

Citronellol, citral, geraniol, cinnamaldehyde, hydroxycitronellal, cinnamyl alcohol, eugenol, coumarin, isoeugenol, farnesol, alpha-hexyl cinnamaldehyde Determination of aldehydes, benzyl benzoate and benzyl salicylate.

2 Normative references

This document has no normative references.

3 Terms and definitions

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

4 Principle

The sample was dissolved in methyl pivalate and detected by gas chromatography-mass spectrometry and quantified by internal standard method.

5 Reagents and Materials

Unless otherwise specified, only analytical grade reagents were used.

5.1 Methyl pivalate (methyl trimethylacetate). CAS No. 598-98-1, purity $\geq 99\%$.

5.2 Citronellol. CAS No. 106-22-9, purity $\geq 95\%$.

Note. Only the racemic form CAS No. 106-22-9 was quantified in this document.

5.3 Citral. CAS No. 5392-40-5, contains 2 isomers, total purity is not less than 96%, cis-citral (neral, CAS No. 106-26-3) and trans-citral (geranial, CAS No. 141-27-5).

5.4 Geraniol. CAS No. 106-24-1, purity $\geq 98\%$.

5.5 Cinnamaldehyde. CAS No. 104-55-2, purity $\geq 95\%$.

Note. Only the E isomer (CAS No. 104-55-2) is quantified in this document.

5.6 Hydroxycitronellal. CAS number is 107-75-5, purity $\geq 95\%$.

5.7 Cinnamyl alcohol. CAS No. 104-54-1, purity $\geq 98\%$.

Note. Only the E isomer (CAS No. 104-54-1) is quantified in this document.

5.8 Eugenol. CAS No. 97-53-0, purity $\geq$ 98%.

5.9 Coumarin. CAS number. 91-64-5, purity $\geq$ 98%.

5.10 Isoeugenol. CAS No. 97-54-1, purity $\geq$ 98%.

5.11 Farnesol. CAS No. 4602-84-0, purity $\geq$ 95%.

Note. In this document, only the (E,E) isomer (CAS No. 106-28-5) and (Z,E) isomer (CAS No. 3790-71-4) are quantified.

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