

ICS 67.220.10

CCS B 36



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

GB/T 22293-2008

**Ginger and its oleoresins - Determination of the main pungent
components (gingerols and shogaols)- Method using
high-performance liquid chromatography**

姜及其油树脂 主要刺激成分测定 HPLC法

(English Translation)

Issued on: August 12, 2008

Implemented on: March 1, 2009

Issued by: Standardization Administration of China

Table of Contents

Foreword
1 Scope
2 Normative references
4 Reagents
4.1 External standard
4.2 Solvent
5 Instruments
5.1 Chromatograph

Foreword

1997 "Ginger and its oleoresins main irritating ingredients (alcohol and ginger gingerol) Determination of HPLC. ISO 13685 equivalent standards adopted Law "(in English). This standard is equivalent to translate ISO 13685:1997.

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

- a) "this International Standard" be replaced by this standard;
- b) use a decimal point instead of a decimal comma " , " . " , " ;
- c) the portion of the ISO 13685 and warnings into the footnotes of this standard provision.

The Standard Appendix A, Appendix B, Appendix C, Appendix D, Appendix E are informative appendices.

The standard proposed by China Federation of Supply and Marketing Cooperatives.

The standard by the China Federation of Supply and Marketing Cooperatives Nanjing Institute of comprehensive utilization of wild plants.

This standard was drafted. China Federation of Supply and Marketing Cooperatives Nanjing Institute of comprehensive utilization of wild plants.

1 Scope

This standard specifies the determination of ginger and ginger oleoresin ginger alcohol, gingerol (abbreviated as [6] -G, [8] -G, [10] -G, [6] -S, [8] -S, [10] -S) RP-HPLC determination.

This standard applies to dried ginger and ginger oleoresin ginger alcohol, gingerol

determination.

NOTE: ginger alcohol and phenol chemical structure see Appendix A.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the present standard agreement parties referred to research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 12729.3 spices and seasoning powder sample was prepared for analysis (GB/T 12729.3-2008, ISO 2825.

1981, MOD)

GB/T 12729.6 Determination of spices and condiments moisture content (distillation) (GB/T 12729.6-2008, ISO 939.

1980, NEQ)

Principle 3

At normal temperature and pressure, and extracted with methanol and dried ginger powder of irritating ingredients, the extract was concentrated under reduced pressure, and the resulting concentrate directly by reverse phase by HPLC analysis. As quantified by external standard vanilla azelaic acid amide (NVA).

4 Reagents

Analytical reagent, unless otherwise stated, all with HPLC grade water.

4.1 External standard

Azelaic acid vanilla amide (NVA) has a melting point between 42 °C ~ 44 °C, under the conditions specified in this standard, when analyzed by HPLC, to give a single A chromatographic peak (peak time between 3min ~ 8min, the peak area of \u200b\u200bat least 98% of the total area).

4.2 Solvent

4.2.1

Methanol. HPLC grade.

4.2.2

Methanol. AR.

4.2.3

acetonitrile. HPLC grade.

4.2.4

glacial acetic acid.

5 Instruments

Universal laboratory instruments, other instruments are as follows.

5.1 Chromatograph

Can be used in chromatography HPLC analysis, the configuration is as follows.

- a) injection system. accurate injection of 20 μ L sample;
- b) fixed wavelength (280nm) UV detector;

GB/T 22293-2008/ISO 13685:1997