

ICS 67.220.10

CCS X66



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

GB/T 22099-2008

**Identification method for biogenic acetate acid and synthetic
acetate acid**

酿造醋酸与合成醋酸的鉴定方法

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Quarantine of the People's Republic of China;
Standardization Administration of China**

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Foreword

Appendix A of this standard is an informative annex. This standard by the National Standardization Technical Committee Technical Committee fermented food industry and focal points. This standard was drafted. Institute of Radiation Medicine, Fudan University, China Food Fermentation Industry Research Institute, Tian Guan Enterprise Group Co., the company. The main drafters of this standard. Zhu Guoying, Zhang Wei, Zhai school, Wang Zhiqiang, Kang Yongpu. Identification of brewing acetate and acetic acid synthesis

1 Scope

GB/T 22099-2008 is the Chinese national standard on identification method for biogenic acetate acid and synthetic acetate acid, in the field of food technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 25 June 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 June 2009.

Classification: ICS 67.220.10, CCS X66. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the difference between brewing and acetic acid synthesis methods. This standard applies to identify brewing acetate and acetic acid synthesis.

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 parties to

the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 6682 analytical laboratory use specifications and test methods (GB/T 6682-2008, ISO 3696. 1987, MOD)

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 In cereal grains, potatoes, fruits and other raw materials, produced by fermentation obtained acetic acid (glacial acetic acid).

3.2 In hydrocarbon acetylene, ethylene, methanol and other petrochemical products as raw materials, synthetic production obtained in acetic acid (glacial acetic acid). Principle

4 Brewing acetic ^{14}C content is stable within a certain range, while a large number of synthetic acetic acid ^{14}C decay, only a trace remaining. based on Carbon isotope ^{14}C content in brewing and acetic acid in the synthesis is significantly different measured ^{14}C content of acetic acid by liquid scintillation method to brewing ^{14}C is made of acetic acid 100 acetic acid synthesis is 0, ^{14}C ^{14}C content in a mixture of both in their intermediate values can be measured both quantitatively The ratio, as a method of identification.

5 Reagents and solutions

5.1 toluene scintillation solution. Weigh 2,5-diphenyl oxazole 4g (PPO, flashing pure) and bis [2- (5-phenyl-oxazolyl)] benzene (POPOP, blinking Pure) 0.1g, dissolved with toluene and dilute to 1000mL.

5.2 Internal standard sources.

5.2.1 Standard sources. carbon-14 (n-hexadecane) standard solution (GB WO4319, a), activity/concentration 39075Bq/g.

5.2.2 preparation. Weigh 1g standard radioactive source (accurate to 0.0001g), with toluene and dilute to 500mL, and calculated per ml of toluene Standard radioactive content (dpm/mL).

5.4 Brewing acetate standard.

5.5 Synthesis of acetic acid standard.

6 Instruments

6.1 low background liquid scintillation analyzer.