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

GB/T 21309-2025

Replacing GB/T 21309-2007

**Inspection of grain and oils - Determination of oils and liquid
paraffin spread on rice**

粮油检验 涂渍油脂或石蜡大米检验

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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 replaces GB/T 21309-2007 "Inspection of Rice Coated with Grease or Paraffin". Compared with GB/T 21309-2007, except for the structure In addition to adjustments and editorial changes, the main technical changes are as follows.

- Changed the oil spot detection materials (see 4.2.1, 4.1 of the 2007 edition);
- Changed the detection limit of oil spot detection (see 4.7, Chapter 1 of the 2007 edition);
- Added liquid chromatography-gas chromatography as a quantitative detection method for confirming paraffin-coated rice and the corresponding result calculation and table Description, precision, and limit of quantitation (see Chapter 5);
- Deleted the gas chromatography and microcolumn chromatography tests and the corresponding result analysis and judgment (see 6.3, 7.2 and 7.3 of the 2007 edition).

This document was submitted by the State Administration of Grain and Material Reserves.

This document is under the jurisdiction of the National Technical Committee on Standardization of Cereals and Oils (SAC/TC270).

This document was drafted by: National Grain and Material Reserves Administration

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The previous versions of this document and the documents it replaces are as follows.

- First published in 2007 as GB/T 21309-2007;
- This is the first revision.

Introduction

The issuing authority of this document draws attention to the fact that claims of compliance with this document may involve the detection of oil spots on rice stained with grease or paraffin in Chapter 4. Use of relevant patents.

The issuing organization of this document takes no position on the authenticity, validity and scope of this patent.

The patent holder has promised to the publisher of this document that it agrees to license the patent to any organization or Individuals use patents when implementing this national standard. The patent holder's statement has been filed with the issuing agency of this document.

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Patent holder. National Grain and Material Reserves Administration Scientific Research Institute Address. Liangke Building, No. 11 Baiwanzhuang Street, Xicheng District, Beijing Contact. Wang Jiaya E-mail.wjy@ags.ac.cn Please note that in addition to the above patents, some of the contents of this document may still involve patents. The issuing organization of this document does not bear the responsibility of identifying patents. responsibility.

1 Scope

This document describes a qualitative method for the detection of oil spots on rice coated with grease or paraffin and a liquid chromatography-gas chromatography method for the confirmation of paraffin-coated rice.

Quantitative method for phase chromatography detection.

This document applies to the detection of rice coated with grease or paraffin.

This document does not apply to the testing of germinated rice.

2 Normative references

GB/T 5491

3 Terms and Definitions

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

4.1 Principle

At 55°C, the oil or paraffin coated on the rice will seep out as the water inside the rice evaporates, and the wrapped polypropylene oil-absorbing blue film will absorb the oil.

The oil spots can be used to detect whether the rice is stained with grease or paraffin.

4.2 Materials

4.2.1 Polypropylene oil-absorbing blue film. 5cmx8cm.

4.2.2 Glass plate. 20cmx20cmx2mm, clean, dry and set aside.

4.3 Instruments and Equipment

4.3.1 Balance. 0.1g.

4.3.2 Constant temperature drying oven.

4.4 Sampling and sub-sampling

Follow the requirements of GB/T 5491.

4.5 Measurement steps

Take 3 pieces of polypropylene oil-absorbing blue film, fold the longitudinal sides inward 1 cm. Weigh 3 samples, each about 1g, and spread them evenly on the 3 pieces.

Polypropylene oil-absorbing blue film. Wrap the specimen around one transverse end of the polypropylene oil-absorbing blue film until the specimen is evenly wrapped inside the film.