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

GB/T 47997-2026

**Flexible cellular polymeric materials - Determination of
antibacterial effectiveness**

柔性多孔聚合物材料 抗菌效果的测定

(English Translation)

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This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is modified to adopt ISO 23641:2021 "Determination of antibacterial properties of flexible porous polymer materials".

Compared with ISO 23641:2021, this document has undergone the following structural adjustments.

---Added versions 3.8 and 3.9;

---This divides 5.1 into two sections. 5.1.1 and 5.1.2;

--- Divide 5.6 into 10 sections. 5.6.1 to 5.6.10.

The technical differences between this document and ISO 23641:2021, and the reasons therefor, are as follows.

---The scope of application has been revised (see Chapter 1) to adapt to my country's technical conditions and increase operability;

---Added terms and definitions for "viable cell count" and "colony forming unit" (see 3.8 and 3.9) to facilitate user understanding of this document.

document;

---The requirements for the strains used in the assay have been changed (see 5.1.2), expanding the appropriate channels for using strains;

---Added *Staphylococcus aureus* and *Escherichia coli* from Chinese institutions (see 5.1), removed the bacterial culture preservation column from Table 1 (see ISO 23641:2021, section 5.1), expands the rational channels for the use of strains;

---The requirements for meat extracts have been changed (see 5.2.2), clarifying the names of standard components to facilitate the use of the standard;

---The requirements for the inoculation loop have been changed (see 5.3.1) to facilitate the use of the standard;

---The material requirements for the stopper have been changed (see 5.3.3) to facilitate the use of the standard;

---Added normative references to JG/T 292 (see 5.3.5) and GB 41918 (see 5.3.6) to facilitate standard reference;

---The requirements for sterile pipettes have been changed (see 5.3.14) to facilitate the use of the standard;

---Added requirements for the use of biosafety cabinets (see 5.6.1) to facilitate the application of the standard;

---ISO 1923 has been replaced with the normatively referenced GB/T 6342 (see 5.7.3) for ease of reference;

---The requirements for the post-vaccination control group have been changed (see 5.7.6) to facilitate the differentiation of the control group;

---Added operational requirements for contact between the culture medium and the open surfaces of the flexible porous polymer material during the experiment (see 5.7.6) to facilitate...

Experimental operation;

---Antimicrobial efficacy assessment conclusions have been added to the test report (see Chapter 6) to improve the report's completeness;

--- An additional requirement has been added to select 1 to 3 suitable concentrations (see A.2.2) to ensure that a suitable concentration for plate counting is selected.

The following editorial changes have been made to this document.

---Note 1 in section 5.7.5 of ISO 23641:2021 has been removed;

---Added content from the notes in 5.7.5;

---Note 5.7.6 of ISO 23641:2021 has been deleted;

---The symbols used in formula (A.1) have been modified;

---References have been added.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Petroleum and Chemical Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Rubber and Rubber Products (SAC/TC35).