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

**GB/T 32725-2026**

Replacing GB/T 32725-2016

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**Collection, handling and storage of soil under aerobic  
conditions for the assessment of microbiological processes,  
biomass and diversity in the laboratory**

用于实验室分析微生物过程、生物量与多样性土壤样品的好氧采集、处理及贮存  
**(English Translation)**

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## Foreword

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 replaces GB/T 32725-2016 "Laboratory determination of microbial processes, biomass and diversity - aerobic collection and treatment of soil samples".

"Guidelines for Processing and Storage". Compared with GB/T 32725-2016, apart from structural adjustments and editorial changes, the main technical changes are as follows.

---The standard range has been changed (see Chapter 1, Chapter 1 of the 2016 edition);

---The requirements for selecting sampling points have been changed (see 4.1, 3.1 in the 2016 version);

---The requirement for a preliminary investigation has been added (see 4.2);

---The requirements for soil treatment have been changed (see 4.8, 3.7 in the 2016 edition);

---The storage conditions and duration for non-real-time bioassessment soil samples have been changed (see Table 1, 2016 edition);

---The requirements for sampling reports have been changed (see Chapter 5, Chapter 4 of the 2016 edition).

This document is equivalent to ISO 18400-206:2018 "Soil quality sampling - Part 206: Sampling for laboratory analysis of microbial waste".

Aerobic collection, processing and storage of soil samples for process, biomass and diversity.

The following minimal editorial changes have been made to this document.

---To align with existing standards, the standard title has been changed to "Laboratory Determination of Microbial Processes, Biomass and Diversity in Soil (Aerobic)".

Collection, processing and storage guidelines.

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 Ministry of Agriculture and Rural Affairs of the People's Republic of China.

This document is under the jurisdiction of the National Technical Committee on Soil Quality Standardization (SAC/TC404).

## 1 Scope

This document provides guidelines for the aerobic collection, processing, and storage of soil samples used in laboratory analysis of microbial processes, biomass, and diversity.

Precise method.

This document describes how to minimize the impact of differences in temperature, moisture content, and oxygen availability on aerobic processes, and on soil.

The effects of particle fractionation on facilitating reproducible laboratory assays [1-2].

This document is applicable to assessing the effects of soil on microorganisms, invertebrates (e.g., survival, reproduction, growth, behavior), and plants (e.g., development, growth).

Impact. The methods described in this document are not applicable to soil treatments requiring anaerobic conditions throughout. This document is applicable to temperate soils. From extreme...

Soil collected under extreme conditions (such as permafrost and tropical soils) may require special treatment.

**Note:** This document does not provide standard methods for the collection, processing, and storage of soil samples for assessing the structure and function of field soil biological communities. Such standard methods are not available in [the following context].

Provided in ISO 23611-1 to ISO 23611-6.

## 2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

ISO 18400-101 Soil quality sampling - Part 101: Framework for the preparation and application of sampling plans (Soilquality-Sample-) ISO 18400-107 Soil quality sampling - Part 107: Recording and reporting ISO 18400-202 Soil quality sampling - Part 202: Preliminary investigation

## 3 Terms and Definitions

The following terms and definitions apply to this document.

aerobic

A state in which one can freely obtain oxygen.

anaerobic

A state in which one cannot freely obtain oxygen.

Soil moisture content the percentage (%) of water evaporated during the drying process to constant weight at 105°C.

[Source. ISO 11465:2025, 3.2, with modifications]