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**SANS 7954:1987**

Edition 1 and nat. amdt 1

**ISO 7954:1987**

Edition 1

Any reference to SABS ISO 7954 is deemed  
to be a reference to this standard  
(Government Notice No. 1373 of 8 November 2002)

## **SOUTH AFRICAN NATIONAL STANDARD**

# **Microbiology — General guidance for enumeration of yeasts and moulds — Colony count technique at 25 °C**

This national standard is the identical implementation of ISO 7954:1987 and is adopted with the permission of the International Organization for Standardization.

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**Table of changes**

<b>Change No.</b>	<b>Date</b>	<b>Scope</b>
Nat. amdt 1	2007	Amended to change the designation from SABS to SANS, with no technical changes.

**National foreword**

This South African Standard was approved by National Committee StanSA TC 5140.26, *Microbiological evaluation of foods, feeds and beverages*, in accordance with procedures of Standards South Africa, in compliance with annex 3 of the WTO/TBT agreement.

This standard was published in March 2007. This SANS edition is technically identical to the first SABS edition (SABS ISO 7954:1987), with the addition of national amendment 1.

# INTERNATIONAL STANDARD

ISO  
7954

First edition  
1987-11-01



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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION  
ORGANISATION INTERNATIONALE DE NORMALISATION  
МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

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## **Microbiology — General guidance for enumeration of yeasts and moulds — Colony count technique at 25 °C**

*Microbiologie — Directives générales pour le dénombrement des levures et moisissures —  
Technique par comptage des colonies à 25 °C*

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7954 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

# Microbiology — General guidance for enumeration of yeasts and moulds — Colony count technique at 25 °C

## 0 Introduction

This International Standard is intended to provide general guidance for the microbiological examination of food products not dealt with by existing International Standards and to be taken into consideration by bodies preparing microbiological methods of test for application to foods or to animal feeding stuffs.

Because of the large variety of products within this field of application, these guidelines may not be appropriate for some products in every detail, and for some other products it may be necessary to use different methods.

Nevertheless, it is hoped that in all cases every attempt will be made to apply the guidelines provided as far as possible and that deviations from them will only be made if absolutely necessary for technical reasons.

When this International Standard is next reviewed, account will be taken of all information then available regarding the extent to which the guidelines have been followed and the reasons for deviation from them in the case of particular products.

The harmonization of test methods cannot be immediate, and for certain groups of products International Standards and/or national standards may already exist that do not comply with these guidelines. In cases where International Standards already exist for the product to be tested, they should be followed, but it is hoped that when such standards are reviewed they will be changed to comply with this International Standard so that eventually the only remaining departures from these guidelines will be those necessary for well-established technical reasons.

## 1 Scope and field of application

This International Standard gives general guidance for the enumeration of viable yeasts and moulds in products intended for human consumption or feeding of animals by means of the colony count technique at 25 °C.

NOTE — Owing to the nature of yeasts and moulds, the enumeration is subject to certain imprecisions.

## 2 References

ISO 6887, *Microbiology — General guidance for the preparation of dilutions for microbiological examination.*

ISO 7218, *Microbiology — General instructions for microbiological examinations.*

## 3 Definition

For the purpose of this International Standard, the following definition applies.

**yeasts and moulds** : Micro-organisms which at 25 °C form colonies in a selective medium according to the method specified in this International Standard.

## 4 Principle

**4.1** Preparation of poured plates using a specified selective culture medium and a specified quantity of the test sample if the initial product is liquid, or of an initial suspension in the case of other products.

Preparation of other plates, under the same conditions, using decimal dilutions of the test sample or of the initial suspension.

**4.2** Aerobic incubation of the plates at 25 °C for 3, 4 or 5 days.

**4.3** Calculation of the number of yeasts and moulds per gram or per millilitre of sample from the number of colonies obtained on plates chosen at dilution levels so as to give a significant result.

## 5 Diluent and culture medium

### 5.1 Basic materials

In order to improve the reproducibility of the results, it is recommended that, for the preparation of the culture medium, dehydrated basic components or a complete dehydrated medium be used. The manufacturer's instructions shall be rigorously followed.

The chemical products used shall be of recognized analytical quality.

The water used shall be distilled or deionized water, free from substances that might inhibit the growth of yeasts and moulds under the test conditions.