

---

---

**Milk — Enumeration of somatic cells —**

**Part 1:**  
**Microscopic method**

*Lait — Dénombrement des cellules somatiques —*

*Partie 1: Méthode au microscope*



## 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 13366-1 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, in collaboration with the International Dairy Federation (IDF) and AOAC INTERNATIONAL, and will also be published by these organizations.

ISO 13366 consists of the following parts, under the general title *Milk — Enumeration of somatic cells*:

*Part 1: Microscopic method*

*Part 2: Electronic particle counter method*

*Part 3: Fluoro-opto-electronic method*

Annex A of this part of ISO 13366 is for information only.

© ISO 1997

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization  
Case postale 56 • CH-1211 Genève 20 • Switzerland  
Internet central@isocs.iso.ch  
X.400 c=ch; a=400net; p=iso; o=isocs; s=central

Printed in Switzerland

# Milk — Enumeration of somatic cells —

## Part 1:

### Microscopic method

**WARNING** — The use of this standard may involve hazardous materials, operations and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.

## 1 Scope

This part of ISO 13366 specifies a method for counting somatic cells in both raw and chemically preserved milk. The method is suitable for preparing standard test samples and for calibrating mechanized and automatic cell-counting procedures.

## 2 Definition

For the purposes of this part of ISO 13366, the following definition applies.

**2.1 somatic cells:** Those cells with nuclei, that is, all leucocytes and epithelial cells.

## 3 Principle

Spreading of a test portion of the milk to be examined over a slide to form a film. Drying and staining of the film and subsequent counting of the stained cells using a microscope. Multiplication of the number of cells counted in a defined area by a working factor to give the number of cells per millilitre.

## 4 Reagents

**WARNING** — Tetrachloroethane is poisonous. Ethidium bromide is toxic. The preparation and application of the dye solution shall be carried out in a fume cupboard. Use gloves for protection.

Use only reagents of recognized analytical grade, unless otherwise specified, and distilled or deionized water or water of equivalent purity.