

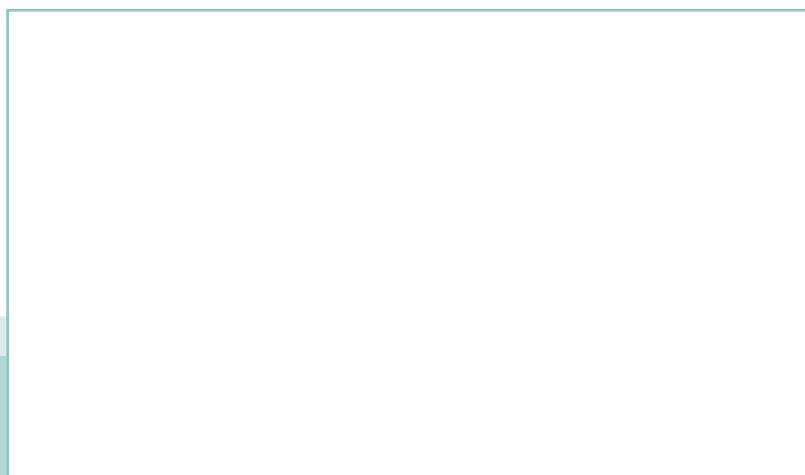
SVENSK STANDARD

SS-EN ISO 6887-5:2010



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Microbiology of food and animal feeding stuffs – Preparation of test samples, initial suspension and decimal dilutions for microbiological examination – Part 5: Specific rules for the preparation of milk and milk products (ISO 6887-5:2010)



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Denna standard ersätter SS-EN ISO 8261, utgåva 1.

The European Standard EN ISO 6887-5:2010 has the status of a Swedish Standard. This document contains the official version of EN ISO 6887-5:2010.

This standard supersedes the Swedish Standard SS-EN ISO 8261, edition 1.

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 6887-5

August 2010

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English Version

Microbiology of food and animal feeding stuffs - Preparation of test samples, initial suspension and decimal dilutions for microbiological examination - Part 5: Specific rules for the preparation of milk and milk products (ISO 6887-5:2010)

Microbiologie des aliments - Préparation des échantillons, de la suspension mère et des dilutions décimales en vue de l'examen microbiologique - Partie 5: Règles spécifiques pour la préparation du lait et des produits laitiers (ISO 6887-5:2010)

Mikrobiologie von Lebensmitteln und Futtermitteln - Vorbereitung von Untersuchungsproben und Herstellung von Erstverdünnungen und von Dezimalverdünnungen für mikrobiologische Untersuchungen - Teil 5: Spezifische Regeln für die Vorbereitung von Milch und Milcherzeugnissen (ISO 6887-5:2010)

This European Standard was approved by CEN on 25 March 2010.

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SS-EN ISO 6887-5:2010 (E)

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Principle.....	2
5 Diluents.....	3
6 Apparatus	7
7 Preparation of samples.....	7
7.1 Frozen products	7
7.2 Hard and dry products	8
7.3 Liquid and non-viscous products.....	8
7.4 Heterogeneous products	8
8 General procedures.....	8
8.1 General	8
8.2 Sampling.....	8
8.3 General case for acidic products.....	8
8.4 High-fat foods (fat content > 20 % mass fraction)	9
9 Specific procedures	9
9.1 Milk and liquid milk products	9
9.2 Dried milk, dried sweet whey, dried acid whey, dried buttermilk, and lactose.....	9
9.3 Cheese and processed cheese	9
9.4 Acid casein, lactic casein, rennet casein, and caseinate.....	10
9.5 Butter	11
9.6 Ice-cream	11
9.7 Custard, desserts and sweet cream (pH > 5).....	11
9.8 Fermented milk and sour cream (pH < 5).....	11
9.9 Milk-based infant foods	11
10 Further decimal dilutions.....	12
Bibliography.....	13

SS-EN ISO 6887-5:2010 (E)

Foreword

This document (EN ISO 6887-5:2010) has been prepared by Technical Committee ISO/TC 34 "Food products" in collaboration with Technical Committee CEN/TC 275 "Food analysis - Horizontal methods" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2011, and conflicting national standards shall be withdrawn at the latest by February 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 6887-5:2010 has been approved by CEN as a EN ISO 6887-5:2010 without any modification.

Microbiology of food and animal feeding stuffs — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination —

Part 5: Specific rules for the preparation of milk and milk products

WARNING — The use of this International Standard may involve hazardous materials, operations, and equipment. It is the responsibility of the user to establish appropriate health and safety practices and to determine the applicability of regulatory limitations prior to use.

1 Scope

This part of ISO 6887 specifies rules for the preparation of samples of milk and milk products and their suspension for microbiological examination when the samples require a different preparation from the general methods specified in ISO 6887-1. ISO 6887-1 defines the general rules for the preparation of the initial suspension and decimal dilutions for microbiological examination.

This part of ISO 6887 excludes preparation of samples for both enumeration and detection test methods where preparation details are specified in the relevant International Standards.

This part of ISO 6887 is applicable to:

- a) milk and liquid milk products;
- b) dried milk products;
- c) cheese;
- d) casein and caseinates;
- e) butter;
- f) ice-cream;
- g) custard, desserts and sweet cream;
- h) fermented milk and sour cream;
- i) milk-based infant foods.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 707 | IDF 50, *Milk and milk products — Guidance on sampling*

SS-EN ISO 6887-5:2010 (E)

ISO 6887-1, *Microbiology of food and animal feeding stuffs — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination — Part 1: General rules for the preparation of the initial suspension and decimal dilutions*

ISO 7218, *Microbiology of food and animal feeding stuffs — General requirements and guidance for microbiological examinations*

ISO/TS 11133-2, *Microbiology of food and animal feeding stuffs — Guidelines on preparation and production of culture media — Part 2: Practical guidelines on performance testing of culture media*

3 Terms and definitions

For the purposes of this International Standard, the following terms and definitions apply.

3.1 laboratory sample

sample prepared for sending to the laboratory and intended for inspection or testing

NOTE Adapted from ISO 7002:1986^[1], A.19.

3.2 test portion

(microbiology) measured volume or measured mass of representative sample taken from the laboratory sample for use in the preparation of the initial suspension

3.3 initial suspension primary dilution

suspension, solution or emulsion obtained after a weighed or measured quantity of the product under examination (or of a test sample prepared from the product) has been mixed, if necessary, using a blender and observing appropriate precautions, with a nine-fold quantity of dilution fluid (diluent), allowing large particles, if present, to settle

NOTE 1 For appropriate precautions, see 8.1.

NOTE 2 For details of diluents, see Clause 5.

3.4 further decimal dilutions

suspensions, solutions or emulsions obtained by mixing a specific volume of the primary dilution (3.3) with a nine-fold volume of diluent, and by repeating this operation with every dilution thus prepared, until a decimal dilution series, suitable for the inoculation of culture media, is obtained

4 Principle

An initial suspension (3.3) is prepared to obtain as uniform a distribution as possible of the microorganisms contained in the test sample.

If necessary, further decimal dilutions (3.4) are prepared in order to reduce the number of microorganisms per volume to allow, after incubation, observation of any growth (in the case of liquid media) or colonies (in the case of agar plates), as stated in each relevant International Standard.

In order to restrict, if required, the range of enumeration to a given interval, or if high numbers of microorganisms are foreseen, it is possible to inoculate only the necessary decimal dilutions (at least two successive dilutions) needed to achieve enumeration according to the calculation specified in ISO 7218.

5 Diluents

During the analysis, unless otherwise stated, use only reagents of recognized analytical grade, and only sterile distilled or deionized water.

5.1 Basic materials.

See ISO 6887-1.

5.2 Diluents for general use.

5.2.1 Peptone-salt solution.

5.2.1.1 Composition.

Enzymatic digest of casein	1,0 g
Sodium chloride (NaCl)	8,5 g
Water	1 000 ml

5.2.1.2 Preparation.

Dissolve the components in the water, heating slightly on a hotplate (6.6) if necessary. Adjust the pH, if necessary, so that after sterilization it is $7,0 \pm 0,2$ at 25 °C.

5.2.2 Quarter-strength Ringer's solution.

5.2.2.1 Composition.

Sodium chloride (NaCl)	2,25 g
Potassium chloride (KCl)	0,105 g
Calcium chloride (CaCl ₂), anhydrous	0,06 g ^a
Sodium hydrogencarbonate (NaHCO ₃)	0,05 g
Water	1 000 ml
^a Alternatively, use 0,12 g of CaCl ₂ ·6H ₂ O.	

5.2.2.2 Preparation.

Dissolve the salts in the water. Adjust the pH, if necessary, so that after sterilization it is $6,9 \pm 0,2$ at 25 °C.

5.2.3 Peptone solution.

5.2.3.1 Composition.

Enzymatic digest of casein	1,0 g
Water	1 000 ml

5.2.3.2 Preparation.

Dissolve the peptone in the water. Adjust the pH, if necessary, so that after sterilization it is $7,0 \pm 0,2$ at 25 °C.