

This is a preview of "ISO 5764:2009". [Click here to purchase the full version from the ANSI store.](#)

**IDF  
108**

Third edition  
2009-05-01

---

---

## **Milk — Determination of freezing point — Thermistor cryoscope method (Reference method)**

*Lait — Détermination du point de congélation — Méthode au cryoscope  
à thermistance (Méthode de référence)*



Reference numbers  
ISO 5764:2009(E)  
IDF 108:2009(E)

© ISO and IDF 2009

This is a preview of "ISO 5764:2009". [Click here to purchase the full version from the ANSI store.](#)

**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. Neither the ISO Central Secretariat nor the IDF accepts any liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies and IDF national committees. In the unlikely event that a problem relating to it is found, please inform the ISO Central Secretariat at the address given below.



**COPYRIGHT PROTECTED DOCUMENT**

© ISO and IDF 2009

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 either ISO or IDF at the respective address below.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

International Dairy Federation  
Diamant Building • Boulevard Auguste Reyers 80 • B-1030 Brussels  
Tel. + 32 2 733 98 88  
Fax + 32 2 733 04 13  
E-mail [info@fil-idf.org](mailto:info@fil-idf.org)  
Web [www.fil-idf.org](http://www.fil-idf.org)

Published in Switzerland

This is a preview of "ISO 5764:2009". Click here to purchase the full version from the ANSI store.

## Contents

Page

Foreword.....	iv
Foreword.....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Principle.....	2
5 Reagents .....	2
6 Apparatus .....	3
7 Sampling.....	4
8 Calibration of the thermistor cryoscope .....	4
9 Preparation of test sample.....	5
9.1 Preparation .....	5
9.2 Sample condition .....	6
10 Procedure .....	6
10.1 Preliminary checks .....	6
10.2 Routine calibration check .....	6
10.3 Determination.....	6
11 Calculation and expression of results.....	7
11.1 Calculation.....	7
11.2 Expression of results .....	7
12 Precision.....	7
12.1 Interlaboratory test .....	7
12.2 Repeatability.....	7
12.3 Reproducibility.....	7
13 Test report .....	8
Annex A (informative) Interlaboratory trial on bovine milk.....	9
Annex B (informative) Interlaboratory trial on raw ovine and caprine milk .....	11
Annex C (informative) Guidelines for the application of routine thermistor cryoscope methods .....	13
Annex D (informative) Adjustment of the freezing point value used as the reference for genuine milk .....	16
Bibliography .....	17

## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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

International Standard ISO 5764|IDF 108 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 5, *Milk and milk products*, and the International Dairy Federation (IDF). It is being published jointly by ISO and IDF.

This third edition of ISO 5764|IDF 108 cancels and replaces the second edition (ISO 5764|IDF 108:2002), the scope of which has been technically revised.

This is a preview of "ISO 5764:2009". [Click here to purchase the full version from the ANSI store.](#)

## Foreword

**IDF (the International Dairy Federation)** is a non-profit organization representing the dairy sector worldwide. IDF membership comprises National Committees in every member country as well as regional dairy associations having signed a formal agreement on cooperation with IDF. All members of IDF have the right to be represented on the IDF Standing Committees carrying out the technical work. IDF collaborates with ISO in the development of standard methods of analysis and sampling for milk and milk products.

Draft International Standards adopted by the Action Teams and Standing Committees are circulated to the National Committees for voting. Publication as an International Standard requires approval by at least 50 % of the IDF National Committees casting a vote.

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

International Standard ISO 5764|IDF 108 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 5, *Milk and milk products*, and the International Dairy Federation (IDF). It is being published jointly by ISO and IDF.

All work was carried out by the Joint IDF-ISO Action Team on *Water*, of the Standing Committee on *Main components in milk*, under the aegis of its project leader, Mrs. S. Orlandini (IT).

This edition of ISO 5764|IDF 108 cancels and replaces ISO 5764|IDF 108:2002, the scope of which has been technically revised.