
**Vegetable fats and oils — Determination
of phospholipids content in lecithins by
HPLC using a light-scattering detector**

*Corps gras d'origine végétale — Détermination de la teneur en
phospholipides dans les lécithines par CLHP avec détecteur à diffusion
de la lumière*

Sample Document

get full document from standards.iteh.ai



Reference number
ISO 11701:2009(E)

© ISO 2009

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. The ISO Central Secretariat accepts no 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. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

Sample Document

get full document from standards.iteh.ai



COPYRIGHT PROTECTED DOCUMENT

© ISO 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 at the address below or ISO's member body in the country of the requester.

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
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
5 Reagents	2
6 Apparatus	2
7 Sampling	3
8 Preparation of test sample	3
9 Procedure	3
10 Calculation and expression of results	5
11 Precision of the method	5
12 Test report	6
Annex A (informative) HPLC chromatogram	7
Annex B (informative) Results of an interlaboratory test	8
Bibliography	11

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.

ISO 11701 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 11, *Animal and vegetable fats and oils*.

Sample Document

get full document from standards.iteh.ai

Vegetable fats and oils — Determination of phospholipids content in lecithins by HPLC using a light-scattering detector

1 Scope

This International Standard specifies a method for the quantitative determination of phospholipids content by high performance liquid chromatography (HPLC) using a diol column and a light-scattering detector.

The method is applicable to crude, oil-containing lecithins, and to oil-free lecithins and lecithin fractions from vegetable fats and oils.

The method is not applicable to animal and ruminant lecithins and enzymatically hydrolysed lecithins as the peak separation of lysophosphatidylethanolamine (LPE), lysophosphatidylinositol (LPI) and lysophosphatidic acid (LPA) is insufficient.

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 661, *Animal and vegetable fats and oils — Preparation of test sample*

3 Terms and definitions

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

3.1

content of an individual phospholipid

mass fraction of *N*-acyl-phosphatidylethanolamine (*N*-acyl-PE) or phosphatidylcholine (PC) or phosphatidylethanolamine (PE) or phosphatidylinositol (PI) or phosphatidic acid (PA) or lysophosphatidylcholine (LPC), determined in accordance with the method specified in this International Standard

NOTE The content is expressed in grams per 100 g, numerically equal to a percentage mass fraction.

4 Principle

The individual phospholipids are separated by HPLC using a diol column and a light-scattering detector. For the purpose of quantification, a certified reference mixture is used.