
**Animal and vegetable fats and oils —
Determination of conventional mass
per volume (litre weight in air)**

*Corps gras d'origines animale et végétale — Détermination de la
masse volumique conventionnelle (poids du litre dans l'air)*

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
5 Apparatus	1
6 Sampling	3
7 Preparation of test sample	3
8 Procedure	3
8.1 Calibration of pycnometer.....	3
8.2 Determination.....	3
8.2.1 General.....	3
8.2.2 Fats which are solid at ambient temperatures.....	4
8.2.3 Using the Jaulmes pycnometer.....	4
8.2.4 Using the Gay-Lussac pycnometer.....	4
9 Expression of results	5
9.1 Calculation of the volume of the pycnometer.....	5
9.2 Calculation of the conventional mass per volume.....	6
10 Precision	7
10.1 Interlaboratory tests.....	7
10.2 Repeatability.....	7
10.3 Reproducibility.....	7
11 Test report	7
Annex A (informative) Results of interlaboratory tests	9
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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

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

This fifth edition cancels and replaces the fourth edition (ISO 6883:2007), of which it constitutes a minor revision to exclude its applicability for fat coming from milk and milk products and to include further precision data.

Animal and vegetable fats and oils — Determination of conventional mass per volume (litre weight in air)

1 Scope

This document specifies a method for the determination of the conventional mass per volume ("litre weight in air") of animal and vegetable fats and oils (hereinafter referred to as fats) in order to convert volume to mass or mass to volume.

The procedure is applicable to fats only when they are in a liquid state. Milk and milk products (or fat coming from milk and milk products) are excluded from the scope of this document.

NOTE The determination of conventional mass per volume (litre weight in air) using the oscillating U-tube method can be found in ISO 18301.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp/>

3.1

conventional mass per volume

litre weight in air

quotient of the mass in air of fat to its volume at a given temperature

Note 1 to entry: It is expressed in kilograms per litre (numerically equal to grams per millilitre).

4 Principle

The mass of a volume of liquid fat in a calibrated pycnometer is measured at a specified temperature.

5 Apparatus

Usual laboratory apparatus and, in particular, the following.

5.1 Water bath, capable of being maintained to within 0,1 °C of the temperatures chosen for the calibration and determination.

It should be fitted with a calibrated thermometer, graduated in divisions of 0,1 °C covering the relevant temperature range.