INTERNATIONAL STANDARD

ISO 939

Second edition 2021-01

Spices and condiments — Determination of moisture content

Épices et condiments — Détermination de la teneur en eau





© ISO 2021

Tentation, no part of vical, including p' vuested from All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Lontents Page			
Forew	ord		iv
1	Scope	9	1
2	Norm	native references	1
3	Term	s and definitions	1
4	Princ	iple	1
5	Reag	ents	1
6	Appa	ratus	2
7	_	oling	
8	Proce 8.1 8.2 8.3 8.4	Preparation of apparatus Preparation of test sample Test portion Determination	2 2
9		ession of results	
10	Test 1	report	3
		Octobro Colon Colo	

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 7, *Spices, culinary herbs and condiments*.

This second edition cancels and replaces the first edition (ISO 939:1980), which has been technically revised. The main changes compared with the previous edition are as follows:

- the Introduction has been deleted;
- definition 3.1 has been revised;
- in <u>8.1</u>, "a potassium dichromate sulphuric acid cleaning solution" has been replaced by "a laboratory-grade detergent";
- in 8.4, "asbestos cloth" has been replaced by "glass fibres, stone wool or ceramic fibres";
- in <u>8.4</u>, the instruction to immerse the receiver in water at room temperature has been changed from "15 min" to "45 min";
- in Annex A b), the inner tube diameter has been changed from "9,5 to 12,5 mm" to "5 mm to 12,5 mm".

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Spices and condiments — Determination of moisture content

1 Scope

This document specifies an entrainment method for the determination of the moisture content of spices and condiments.

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 948, Spices and condiments — Sampling

ISO 2825, Spices and condiments — Preparation of a ground sample for analysis

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:

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

3.1

moisture content

content of water extracted or collected in accordance with the method prescribed in this document

Note 1 to entry: Moisture content is expressed as a percentage by mass.

4 Principle

Determination of the amount of water entrained by azeotropic distillation, using an organic solvent immiscible with water, and collected in a graduated tube.

5 Reagents

5.1 Toluene.

Saturate the toluene by shaking with a small quantity of water and distil. Use the distillate for the determination of the moisture.

NOTE Different solvents are used for the determination of moisture.

Unless otherwise specified in the International Standard giving specifications for the spice or condiment in question, toluene shall be the solvent used for the determination.