

INTERNATIONAL STANDARD

**ISO
212**

Second edition
2007-03-15

Essential oils — Sampling

Huiles essentielles — Échantillonnage

STANDARDSISO.COM : Click to view the full PDF of ISO 212:2007



Reference number
ISO 212:2007(E)

© ISO 2007

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.

STANDARDSISO.COM : Click to view the full PDF of ISO 212:2007

© ISO 2007

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

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 212 was prepared by Technical Committee ISO/TC 54, *Essential oils*.

This second edition cancels and replaces the first edition (ISO 212:1973), which has been technically revised.

Introduction

The organoleptic, physical and chemical characteristics of batches of essential oils are determined by means of examination of the samples.

A satisfactory sampling operation therefore needs to provide, for analysis, samples representative of the batches from which they originate without modification of the original composition.

STANDARDSISO.COM : Click to view the full PDF of ISO 212:2007

Essential oils — Sampling

1 Scope

This International Standard gives the general rules for the sampling of essential oils, in order to provide a laboratory with quantities that are suitable to be handled for expertise purposes.

In the presence of a high content of water or other foreign bodies, this method may only be applicable to the “essential oil” fraction free from water and impurities.

2 Terms and definitions

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

2.1

delivery

quantity of essential oil dispatched at a single time and forming the subject of a specific contract or dispatch document

NOTE The delivery may be made up of one or more batches.

2.2

batch

identified quantity of essential oil, assumed to have uniform characteristics, made up of one or more containers

2.3

container

recipient constituting the whole or part of the batch and containing the essential oil to be sampled

2.4

increment

quantity of essential oil sampled at a single time at a point in the container to be sampled

2.5

sample

quantity of essential oil obtained by mixing the different increments of a container

NOTE On the basis of the samples, the laboratory may conduct its own sampling plan in view of the analysis. The sampling plan is not covered in this International Standard.

3 Apparatus

The sampling devices and the related instruments shall be made of materials which do not affect the sampled essential oil.

The type of apparatus required for sampling should be adapted to the volume to be sampled: e.g. cylindrical probes, pipettes, bottom sampler.

4 Sampling

4.1 Inspection

The inspection concerns the physical condition of the delivery, the integrity of the containers, the state of the guarantee systems (lead seals, crown caps, etc.), the designation and the contractual inscriptions.

On opening, conserve the guarantee systems.

4.2 Shaking

Prior to any sampling, shake the essential oil using means suited to both the volume and the shape of the recipient.

Those essential oils that are known to crystallize or to thicken should be slowly warmed to a suitable temperature to dissolve crystals or crystalline mass, before shaking. This action shall not alter the composition of the essential oil.

4.3 Sampling method

All sampling operations shall be performed immediately after an appropriate shaking.

Take three increments per container, as follows:

- take the first increment from the section corresponding to 20 % of the container height;
- take the second between 40 % and 60 % of the container height;
- take the third at over 95 % of the container height.

Gather together the three equal part increments and mix them. After shaking, take 30 ml, which constitute the sample.

In the case of very expensive essential oils, the quantities shall be defined contractually.

The number of samples per container for the laboratory shall be equal to the number of parts concerned plus a reference sample.

5 Packaging and labelling of laboratory samples

5.1 Packaging

Use glass or inert material bottles which protect the essential oil against light.

Pack the samples in clean, dry recipients.

The nature of the recipient shall not alter the essential oil.

Leave a headspace of 2 ml between the essential oil and the stopper to allow for expansion. This space shall not be too great in order to limit possible oxidation due to the air.

Close the recipients using crown tops or new stoppers which do not have any action on the product.