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Sensory analysis — Methodology — Initiation and training of assessors in the detection and recognition of odours

*Analyse sensorielle — Méthodologie — Initiation et entraînement des
sujets à la détection et à la reconnaissance des odeurs*



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Contents

	Page
1 Scope	1
2 Normative references	1
3 Principle	1
4 Products	1
5 General test conditions	2
5.1 Test room	2
5.2 General test rules	2
6 Methods	2
6.1 Direct methods of smelling	2
6.2 Retro-nasal methods of smelling	4
7 Answer form	5
8 Interpretation of results	5
8.1 Introduction — Initiation	5
8.2 Training	6
8.3 Selection	6

Annexes

A Preparation of dilutions of odoriferous substances	7
B Specimen answer form	12
C Retro-nasal method of assessing odours in gaseous phase by placing smelling strips into the buccal cavity	13

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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.

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.

International Standard ISO 5496 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Sub-Committee SC 12, *Sensory analysis*.

Annex A forms an integral part of this International Standard. Annexes B and C are for information only.

Introduction

Owing to the complexity of olfaction, assessors who are to make up panels need to undergo a familiarization and training process before undertaking any sensory analysis concerning the detection of odours.

This period of initiation followed by training is intended to teach assessors to evaluate and to identify odours, to teach them to use the appropriate vocabulary, and also to allow them to improve their individual aptitude.

This International Standard provides guidance on the existing techniques used for this purpose.

At a later stage, organizers should direct the training according to the procedures or specific areas of use and, where necessary, make a selection of assessors on the basis of certain criteria.

Sensory analysis — Methodology — Initiation and training of assessors in the detection and recognition of odours

1 Scope

This International Standard describes several types of method for determining the aptitude of assessors and for training assessors to identify and describe odoriferous products.

The methods described in this International Standard are suitable for use by the agri-foodstuffs industries and industries employing olfactory analysis (e.g. perfumery, cosmetics and aromatics).

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6658:1985, *Sensory analysis — Methodology — General guidance*.

ISO 8589:1988, *Sensory analysis — General guidance for the design of test rooms*.

3 Principle

Presentation to the assessors of odoriferous substances in various forms and concentrations, in accordance with the procedures specified in this International Standard.

Assessment and identification by the assessors of the odours given off by these substances and recording of the results.

4 Products

4.1 Water, neutral, tasteless, still and odourless.

4.2 Ethanol, 96,9 % (V/V), free from extraneous odours, even in low concentrations.

4.3 Other suitable media, appropriate to the requirements of the industry concerned.

4.4 Odoriferous substances, as pure as possible:

- a) substances chosen from those given in table A.2, and used at the concentrations proposed, and/or
- b) any other substance deemed to be of interest, depending on the aim of the test or the requirements of the industry concerned.

For the training phase, the collection of odours shall comprise odoriferous substances representative of several groups of odours (e.g. terpinic, floral) and substances which the assessors will examine (to determine that the assessors have no anosmia for these substances).

It is also advisable to include odours representative of certain defects (e.g. odours typical of cleaning products, printing inks) which are likely to be encountered by the assessors in the forthcoming evaluations.

Odoriferous substances serving as references shall be chosen from among those having a stable composition and which can be stored for an acceptable length of time without deterioration. These substances shall be stored in a cool place (around + 5 °C) and protected from air and light.

NOTE 1 When in aqueous media, the aromatic power of certain substances increases with dilution.