INTERNATIONAL STANDARD

ISO 972

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Chillies and capsicums, whole or ground (powdered) — Specification

Piments dits «piments enragés» et piments forts, entiers ou en poudre — Spécifications

Reference number
ISO 972:1997(E)

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 972 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Subcommittee SC 7, *Spices and condiments*.

This second edition cancels and replaces the first edition (ISO 972:1985), which has been technically revised.

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

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Introduction

Whole chillies and capsicums contain pungent components made up of capsaicinoids. The amount of pungent components present widely varies from one variety to another.

As dimensions, shape and colour vary widely, classification based on these parameters is not of much significance in international trade.

Whole chillies and capsicums are also not generally bought on the basis of capsaicinoids content, but on established origin types suitable to a specific importer. Colour and size are also parameters which may come into consideration in international trade. However, the detailed requirements of the importer require the checking of each consignment, since capsaicinoid content, colour and size vary widely between consignments and from crop to crop. In international trade, a rough differentiation is made between chillies and capsicums on purely size basis, varieties above 25 mm in length being considered a capsicum. However, it is also accepted that many varieties classified as capsicums may have a capsaicinoid content (heat strength) higher than those specified for certain chilli varieties.

Consequently, no limits of capsaicinoid content are laid down to differentiate between chillies and capsicums although as a general principle it may be taken that capsicums have a lower capsaicinoid content (heat strength).

ISO 3513 gives details for determining the pungency in the form of the Scoville index. Determination of the capsaicinoid content by a spectrometric method and an HPLC method are given in ISO 7543-1 and 7543-2 respectively.

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1 Scope

This International Standard specifies requirements for chillies and capsicums in the whole or ground (powdered) form.

Two main species of capiscum, C*apsicum annuum* L. and *C. frutescens* L., and their sub-species *C. chinense*, *C. pubescens* and *C. pendulum* are covered.

This International Standard does not apply to "chili powder" (see also note under 4.2) and paprika (see ISO 7540).

Recommendations relating to conditions of storage and transport are given in annex B.

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 927:1982, *Spices and condiments - Determination of extraneous matter content.*

ISO 928: — [1], *Spices and condiments - Determination of total ash.*

ISO 930: — [2], *Spices and condiments - Determination of acid-insoluble ash.*

ISO 939:1979, *Spices and condiments - Determination of moisture content - Entrainment method.*

ISO 948:1980, *Spices and condiments - Sampling.*

ISO 1208:1982, *Spices and condiments - Determination of filth.*

ISO 2825:1981, *Spices and condiments - Preparation of a ground sample for analysis.*

1) To be published. (Revision of ISO 928:1980)
2) To be published. (Revision of ISO 930:1980)

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 unripe fruits: Fruits not yet mature, the colour of which is considerably different from that of the batch under consideration. Generally the fruits are green or pale yellow in colour.

3.2 marked fruits: Black or black-stained fruits.

3.3 broken fruits: Fruits which are broken during handling and of which a part of the rod is missing.

3.4 fragments: Small pieces of fruits coming from broken fruits.

4 Description

4.1 Chillies and capsicums are the dried pods (fruits) of plants of the genus *Capsicum.* In longitudinal cross-section, the pods are roughly triangular in shape, with the base of the triangle at the point of attachment to the peduncle (stalk). The angles within this triangular shape may vary widely, the angle opposite the point of attachment of the peduncle being generally very acute, but becoming obtuse in rare cases, depending on the species.

The pods contain varying numbers of yellow/white, hard, disc-like seeds, 1 mm to 5 mm in diameter. The number and size of the seeds depend on the species.

When mature, the seeds are attached individually to a relatively soft (spongy) central core within the pod by individual placenta (seed stalks), but in dried commercial chillies the seeds often become detached from the central core and move freely within the pods.

The placenta is known to contain the highest concentration of the pungent capsaicinoids.

The mature pods may vary in colour from dark blackish-red through orange-yellow to yellow-green, according to the species. The material pigmentation, particularly red, is affected by exposure to air and light during storage and the intensity decreases with time.

Dimensions may vary from 10 mm to 120 mm in length and 4 mm to 50 mm in diameter, depending on the species.

4.2 Ground chillies and ground capsicums are the products obtained by grinding whole chillies and whole capsicums, respectively, without any added matter.

These products take the form of a powder of widely varying colour, from deep-red through orange-yellow to pale green, according to the species.

For the needs of international trade, the powder may be ground to any required particle size, according to agreement between the parties concerned. In general, the maximum particle size is 500 µm.

Mixtures of chillies and capiscums as blended powders are common in order to maintain a constant capsaicinoid content (heat strength) or desired colour.

NOTE -- "Chili powder" is the term usually applied to a blend of ground capsicums and other spices available as a homogeneous mix. The product and terminology originate in the USA. As a mixture of spices, "chili powder" is outside the scope of this International Standard.