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**Definitions and technical criteria for  
food ingredients to be considered as  
natural**

*Définitions et critères techniques permettant de considérer un  
ingrédient alimentaire comme naturel*





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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.

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](http://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](http://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 on 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 the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 34, *Food products*.

## Introduction

The purpose of this document is to provide the technical criteria for food ingredients to be considered as natural for use by the food and beverage industry at a global level.

The document offers technical criteria to all food and beverage companies, applicable to all organizations, regardless of size or complexity. This document is intended for use in business-to-business communications and relationships in the global food supply chain.

Conformity to this document helps to assure a level-playing field and fair practices in business-to-business relationships.

This document is not intended to provide information to consumers about natural food ingredients as consumer expectations vary widely around the world and from product to product.

NOTE Legally required information, claims or labelling, or other applicable legal requirements can apply.

Food ingredient sectors may find it beneficial to develop a sector specific interpretation of these technical criteria for food ingredients to be considered as natural, consistent with this document.



# Definitions and technical criteria for food ingredients to be considered as natural

## 1 Scope

The document specifies definitions and technical criteria (acceptable sources, materials and processes) to be fulfilled for food ingredients to be considered as natural.

This document is applicable to food ingredients.

The document is applicable in business-to-business communication (B2B) only. It does not apply to product communication to consumers (i.e. voluntary and mandatory labelling).

It does not apply to human safety, environmental safety, socio-economic considerations (e.g. fair trade) and the characteristics of packaging materials.

It does not apply to the following:

- flavourings<sup>[1]</sup>; however, it is possible to assess the non-flavouring components of flavourings according to the technical criteria defined in this document;
- natural mineral waters<sup>[2]</sup>;
- bottled drinking waters<sup>[3]</sup>.

There are no requirements for genetic engineering nor for agricultural practices such as organic production in this document. However, these can be subject to regulations and/or other requirements.

## 2 Normative references

There are no normative references in this document.

## 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 food

any substance, whether processed, semi-processed or raw, which is intended for human consumption, and includes drinks, chewing gum and any substance that has been used in the manufacture, preparation or treatment of “food” but does not include cosmetics or tobacco or substances used only as drugs

[SOURCE: Codex Alimentarius — General Standard for the Labelling of Prepackaged Food (CODEX STAN 1-1985)]

**3.2  
ingredient**

any substance, including a *food additive* (3.3), used in the manufacture or preparation of a *food* (3.1) and present in the final product although possibly in a modified form

[SOURCE: Codex Alimentarius — General Standard for the Labelling of Prepackaged Food (CODEX STAN 1-1985)]

**3.3  
food additive**

any substance not normally consumed as a *food* (3.1) by itself and not normally used as a typical *ingredient* (3.2) of food, whether or not it has nutritive value, the intentional addition of which to food for a technological (including organoleptic) purpose in the manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food results, may be reasonably expected to result (directly or indirectly) in it or its by-products becoming a component of or otherwise affecting the characteristics of such foods

[SOURCE: Codex Alimentarius — General Standard for the Labelling of Prepackaged Food (CODEX STAN 1-1985)]

## **4 Technical criteria for food ingredients to be considered as natural**

Food ingredients shall be considered as natural provided the following technical criteria are fulfilled.

- a) The source material shall consist of one or more of the following: plant, algae, fungi, animal, microorganism, mineral deposits or sea water.

Fossil fuels shall not be used as a source.

- b) Food ingredients shall be obtained from source materials by physical and/or enzymatic and/or microbiological processing. Enzymatic and/or microbiological processing shall not be used to deliberately produce substances that do not occur in nature. pH adjustment may be used in those processes.

- c) In order to meet food safety and/or regulatory requirements, when no physical and/or enzymatic and/or microbiological processing techniques are available, other processes may be used provided that the constituting component/s of the food ingredient/s is/are not altered.

In the case of compound food ingredients, each food ingredient shall meet the technical criteria of this document to be considered as natural.

The use and incorporation of water during the production of a food ingredient does not preclude the food ingredient from being considered as natural.

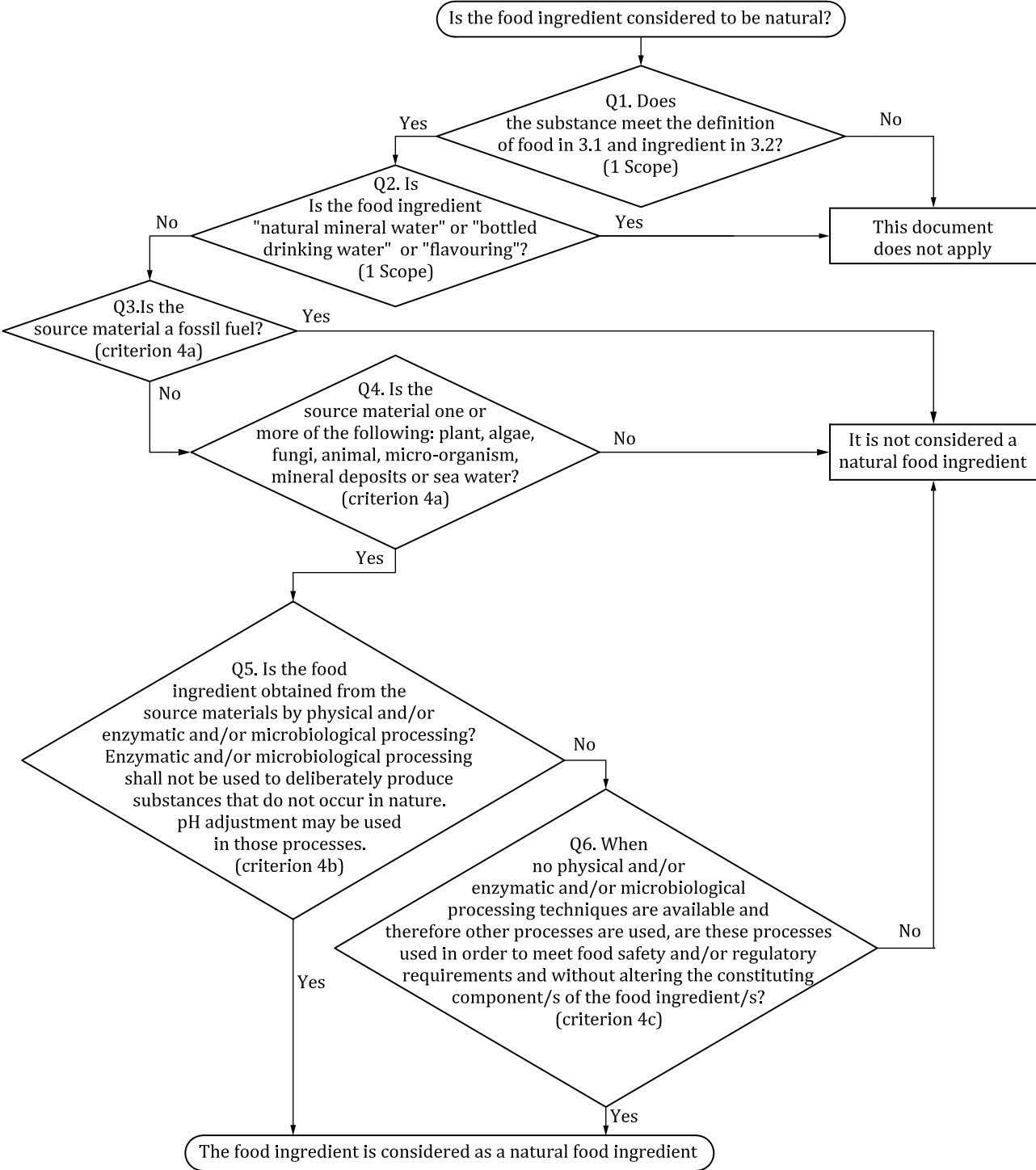
The intentional removal of one or more constituents from a food ingredient during processing does not impact consideration of the food ingredient as natural.

A decision tree is presented in [Annex A](#) as an explanatory note to assist in the use of this document.



# Annex A (informative)

## Decision tree



## Bibliography

- [1] Codex Alimentarius — Guidelines for the Use of Flavourings (CAC/GL 66-2008)
- [2] Codex Alimentarius — Standard for Natural Mineral Waters (CODEX STAN 108-1981)
- [3] Codex Alimentarius — General standard for Bottled/Packaged Drinking Waters (Other than Natural Mineral Waters) (CODEX STAN 227-2001)
- [4] Codex Alimentarius — General Standard for the Labelling of Prepackaged Food (CODEX STAN 1-1985)



