

Algae and algae products - Sampling - Guidelines for the definition of sampling programs and sampling protocols

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

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English Version

Algae and algae products - Sampling - Guidelines for the  
definition of sampling programs and sampling protocols

Algues et produits d'algues - Échantillonnage - Lignes  
directrices pour la définition des programmes et des  
protocoles d'échantillonnage

Algen und Algenprodukte - Probenahme - Leitlinien für  
die Festlegung von Probenahmeprogrammen und  
Probenahmeprotokollen

This European Standard was approved by CEN on 19 February 2024.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN 17980:2024) has been prepared by Technical Committee CEN/TC 454 “Algae and algae products”, the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2024, and conflicting national standards shall be withdrawn at the latest by September 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

## Introduction

This document has been prepared by the experts of CEN/TC 454 “Algae and algae products”.

The European Committee for Standardization (CEN) was requested by the European Commission (EC) to draft European standards or European standardization deliverables to support the implementation of Article 3 of Directive 2009/28/EC for algae and algae products.

This request, presented as Mandate M/547, also contributes to the Communication on “Innovating for Sustainable Growth: A Bio economy for Europe”.

The former working group CEN Technical Board Working Group 218 “Algae”, was created in 2016 to develop a work programme as part of this Mandate. The technical committee CEN/TC 454 'Algae and algae products' was established to carry out the work programme that will prepare a series of standards.

The interest in algae and algae products has increased significantly in Europe as a valuable source including but not limited to carbohydrates, proteins, lipids, and several pigments. These materials are suitable for use in a wide range of applications from food and feed purposes to other sectors, such as textile, cosmetics, biopolymers, biofuel and fertilizer/biostimulants. Standardization was identified as having an important role in order to promote the use of algae and algae products.

The work of CEN/TC 454 should improve the reliability of the supply chain, thereby improving the confidence of industry and consumers in algae and algae products and will promote and support commercialisation of the European algae industry.

This document has been developed with the aim to help algae producers and algae products industries to establish a sound sampling program and a correct sampling protocol. The sampling program will define the strategy for sampling, when, where and how much, and the sampling protocol will define how the samples will be collected, packaged, labelled, preserved and transported until the final destination: laboratory, long term storage, customer, health safety authority, etc.

## 1 Scope

This document specifies a set of principles and rules that algae producers, algae products industries, laboratories or other entities that collect algae and algae products samples can follow for the definition of their own sampling programs and sampling protocols.

In the context of this document, algae are a functional group that include microalgae, macroalgae, cyanobacteria and *Labyrinthulomycetes*.

As algae and their production processes are so diverse, this document does not define a specific sampling program and/or a specific sampling protocol. Instead, this document specifies the aspects that can be considered when defining its own sampling program and protocol.

This document describes when, where and how to draw a representative sample. For guidance on sample preparation of dry and wet samples of micro- and macroalgae, and algae products, please refer to EN 17605.

This document is to be used for the collection of samples for lot characterization for commercial or legal/regulatory purposes. However, this document can also be used for any type of sampling of algae, including samples for quality control during production.

## 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.

EN 17399:2020, *Algae and algae products — Terms and definitions*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 17399:2020 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

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

### 3.1

#### **lot**

quantity of material that is assumed to be of the same production process and represented by specified sampling rules

[SOURCE: EN 17605:2022, 3.1]

### 3.2

#### **sample**

quantity of material, from a larger amount for which the quality is to be determined

Note 1 to entry: A sample is intended to provide information on a given characteristic of the studied lot, and to form a basis for a decision concerning the lot.

Note 2 to entry: A sample can be a laboratory sample, a test sample, a test portion, an incremental sample, or a reserve sample.

[SOURCE: ISO 21637:2020, 3.63, modified – Notes to entry have been removed]