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Algae and algae products - Food and feed applications: General overview of limits, procedures and analytical methods

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Algae and algae products - Food and feed applications: General overview of limits, procedures and analytical methods

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European foreword

This document (CEN/TR 17559:2021) has been prepared by Technical Committee CEN/TC 454 "Algae and algae products", the secretariat of which is held by NEN.

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.

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-based products or intermediates.

This request, presented as Mandate M/547¹, 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-based products or intermediates 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, which include macroalgae, microalgae, cyanobacteria, Labyrinthulomycetes, algae-based products or intermediates and will promote and support commercialisation of the European algae industry.

This document has been prepared in close collaboration with the CEN/TC 454 working groups. The European standards and technical reports developed in this mandate include:

CEN/TC 454/WG 1 Terminology

 CEN/TR 17559, Algae and algae products - Food and feed applications: General overview of limits, procedures and analytical methods

CEN/TC 454/WG 2 Identification

EN 17477, Algae and algae products – Identification of the biomass of microalgae, macroalgae, cyanobacteria and Labyrithulomycetes - Detection and identification with morphological and/or molecular methods²

CEN/TC 454/WG 3 Productivity

 EN 17480, Algae and algae products - Methods for the determination of productivity of algae growth sites³

CEN/TC 454/WG 5 Specifications for non-food/feed sector applications

- CEN/TR 17611, Algae and algae products Specifications for cosmetic sector applications
- CEN/TR xxx, Algae and algae products Specifications for chemical and biofuel applications
- CEN/TR 17612, Algae and algae products Specifications for pharmaceutical sector applications

¹ http://ec.europa.eu/growth/tools-databases/mandates/index.cfm?fuseaction=refSearch.search.

² Under preparation. Stage at the time of publication: prEN 17477.

³ Under preparation. Stage at the time of publication: prEN 17480.

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CEN/TC 454/WG 6 Product test methods

- EN xxx, Algae and algae products Methods of sampling and analysis Determination of total lipids using the Ryckebosch-Foubert method
- EN 17605, Algae, algae products and intermediates Methods of sampling and analysis Sample treatment⁴
- EN xxx, Algae and algae products Methods of sampling and analysis quantification of chlorophyll

The available EU directives and other ISO and CEN standards which are of relevance for algae and algae products for food and feed applications are listed in the bibliography.

⁴ Under preparation. Stage at the time of publication: prEN 17605.

1 Scope

This document describes product specifications, product characteristics and other relevant information for algae and algae products for food, nutraceutical and animal feed applications. This document is a general overview of available limits, procedures and analytical methods applicable to algae and algae products used for food and feed applications.

This document does not apply to pharmaceutical, cosmetics, fertilizer/biostimulants, chemical and biofuel applications.

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, Algae and algae products - Terms and

koniec náhľadu – text ďalej pokračuje v platenej verzii STN