

<b>STN</b>	<b>Riasy a produkty z rias Metódy odberu vzoriek a analýzy Stanovenie obsahu celkových lipidov Ryckebosch-Foubertovou metódou</b>	<b>STN EN 17908</b>  56 6709
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Algae and algae products - Methods of sampling and analysis - Determination of total lipids content using the Ryckebosch-Foubert method

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/24

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EUROPEAN STANDARD

EN 17908

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

## Algae and algae products - Methods of sampling and analysis - Determination of total lipids content using the Ryckebosch-Foubert method

Algues et produits d'algues - Méthodes d'échantillonnage et d'analyse - Détermination de la teneur en lipides totaux à l'aide de la méthode de Ryckebosch-Foubert

Algen und algenbasierte Produkte oder Zwischenprodukte - Verfahren zur Probenahme und Analyse - Bestimmung von Gesamtlipiden mit der Ryckebosch-Foubert-Methode

This European Standard was approved by CEN on 6 November 2023.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**EN 17908:2023 (E)**

<b>Contents</b>		<b>Page</b>
<b>European foreword</b> .....		<b>3</b>
<b>Introduction</b> .....		<b>4</b>
<b>1</b>	<b>Scope</b> .....	<b>5</b>
<b>2</b>	<b>Normative references</b> .....	<b>5</b>
<b>3</b>	<b>Terms and definitions</b> .....	<b>5</b>
<b>4</b>	<b>Principle</b> .....	<b>5</b>
<b>5</b>	<b>Apparatus</b> .....	<b>5</b>
<b>6</b>	<b>Reagents and materials</b> .....	<b>6</b>
<b>7</b>	<b>Sampling and sample handling</b> .....	<b>6</b>
<b>8</b>	<b>Procedure</b> .....	<b>7</b>
<b>8.1</b>	<b>General</b> .....	<b>7</b>
<b>8.2</b>	<b>Procedure without cell disruption</b> .....	<b>7</b>
<b>8.2.1</b>	<b>General</b> .....	<b>7</b>
<b>8.2.2</b>	<b>First extraction</b> .....	<b>7</b>
<b>8.2.3</b>	<b>Second extraction</b> .....	<b>8</b>
<b>8.3</b>	<b>Procedure with cell disruption</b> .....	<b>9</b>
<b>8.3.1</b>	<b>General</b> .....	<b>9</b>
<b>8.3.2</b>	<b>First extraction</b> .....	<b>9</b>
<b>8.3.3</b>	<b>Second extraction</b> .....	<b>10</b>
<b>9</b>	<b>Calculations</b> .....	<b>12</b>
<b>10</b>	<b>Quality control</b> .....	<b>12</b>
<b>10.1</b>	<b>General</b> .....	<b>12</b>
<b>10.2</b>	<b>Interlaboratory reproducibility</b> .....	<b>12</b>
<b>11</b>	<b>Test report</b> .....	<b>13</b>
<b>Annex A (informative) Results of Interlaboratory Trial and Round Robin</b> .....		<b>14</b>
<b>A.1</b>	<b>Introduction</b> .....	<b>14</b>
<b>A.2</b>	<b>Results of the Interlaboratory Trial</b> .....	<b>14</b>
<b>A.3</b>	<b>Results of the Round Robin</b> .....	<b>17</b>
<b>Annex B (informative) Explanation of the use of chloroform</b> .....		<b>19</b>
<b>B.1</b>	<b>Introduction</b> .....	<b>19</b>
<b>B.2</b>	<b>Possible replacement of chloroform by dichloromethane</b> .....	<b>19</b>
<b>Bibliography</b> .....		<b>20</b>

## **European foreword**

This document (EN 17908:2023) 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 June 2024, and conflicting national standards shall be withdrawn at the latest by June 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.

**EN 17908:2023 (E)****Introduction****General**

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/547<sup>1</sup>, 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 textiles, cosmetics, biopolymers, biofuel and fertilizer/biostimulants. Standardization was identified as having an important role in promoting 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 commercialization of the European algae industry.

**Considerations in relation to the method**

There is an objective among the algae community to have an accepted standardized method for the determination of total lipids in algae. There are other methods for the determination of total lipid content currently utilized in specific areas, like food and feed, and non-food and non-feed applications, each one producing consistent results when used in one laboratory, but many times not consistent between different methods or laboratories.

The aim of this document is to define one suitable laboratory method of analysis for the determination of total lipids in algae. This method could also be used as a reference method for the validation of other applied methods. The Ryckebosch-Foubert method determines the total lipid content in micro- and macroalgae. This method has a lower reproducibility when applied to algae with lower lipid content.

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<sup>1</sup> Available at <https://ec.europa.eu/growth/tools-databases/mandates/index.cfm?fuseaction=refSearch.search#>

## 1 Scope

This document specifies a laboratory method for the determination of the total lipid content in micro- and macroalgae by the Ryckebosch-Foubert method.

## 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 definitions*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**