VEE KVALITEET. SISEVEEKOGUDEST FÜTOPLANKTONI KVANTITATIIVSETE JA KVALITATIIVSETE PROOVIDE VÕTMISE JUHISED

Water quality - Guidance on quantitative and qualitative sampling of phytoplankton from inland waters

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 16698:2015 sisaldab Euroopa standardi EN 16698:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 16698:2015 consists of the English text of the European standard EN 16698:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 07.10.2015.	Date of Availability of the European standard is 07.10.2015.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 13.060.70

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 16698

October 2015

ICS 13.060.70

English Version

Water quality - Guidance on quantitative and qualitative sampling of phytoplankton from inland waters

Qualité de l'eau - Lignes directrices sur l'échantillonnage quantitatif et qualitatif du phytoplancton dans les eaux intérieures

Wasserbeschaffenheit - Anleitung für die quantitative und qualitative - Probenahme von Phytoplankton aus Binnengewässern

This European Standard was approved by CEN on 8 August 2015.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 16698:2015 E

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European foreword

This document (EN 16698:2015) has been prepared by Technical Committee CEN/TC 230 “Water analysis”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by April 2016, and conflicting national standards shall be withdrawn at the latest by April 2016.

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

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Introduction

WARNING —Working in or around water is inherently dangerous, Persons using this European standard should be familiar with usual field and laboratory practice. This standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate health and safety practices and to ensure compliance with any national regulatory guidelines.

IMPORTANT — It is absolutely essential that tests conducted according to this European Standard be carried out by suitably trained staff.

Series of phytoplankton samples provide information on the taxonomic composition as well as the spatial occurrence of the individual taxa and their relative abundances. They allow the calculation of the biomass of the individual taxa as well as for the phytoplankton assemblage as a whole.

For the purpose of limnological investigations like monitoring and status assessment of surface waters representative phytoplankton samples are necessary. Therefore suitable sampling methods and monitoring strategies are needed depending on the objectives of the investigation and the given natural conditions.

1 Scope

This European Standard specifies procedures for phytoplankton sampling in inland waters and describes methods of sampling techniques for phytoplankton in inland waters (e.g. rivers and channels, or lakes, ponds, reservoirs and other artificial water bodies, respectively).

This European Standard gives guidance for sampling of phytoplankton for qualitative and quantitative limnological investigations and monitoring of water quality, e.g. ecological status.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15204, *Water quality — Guidance standard on the enumeration of phytoplankton using inverted microscopy (Utermöhl technique)*

EN ISO 5814, *Water quality — Determination of dissolved oxygen — Electrochemical probe method (ISO 5814)*

EN ISO 7027, *Water quality — Determination of turbidity (ISO 7027)*

EN ISO 10523, *Water quality — Determination of pH (ISO 10523)*

ISO 17289, *Water quality — Determination of dissolved oxygen — Optical sensor method*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
deep chlorophyll maximum
DCM
local chlorophyll maximum below the epilimnion where the maximum chlorophyll concentration is at least 1,5 times higher than the average chlorophyll concentration measured in the epilimnion

3.2
depth gradient
parameter to distinguish between polymictic and di- or monomictic lakes as a measure for the mixing intensity of a water body calculated as the quotient of maximum depth and theoretical epilimnion depth

Note 1 to entry: See Annex C.

Note 2 to entry: Values > 1,5 indicate a thermally stable stratified lake. For further details see Annex C and [18].

3.3
dimictic lake
lake with uniform water temperature and holomictic conditions twice a year: during autumn (before ice cover) and during spring (after ice cover)

3.4
epilimnion
zone of the water body between surface and thermocline in which the water temperature and density is approximately uniform, showing a temperature gradient of < 1 °C/m