STN	Kvalita vody. Pokyny na kvantitatívny a kvalitatívny odber vzoriek fytoplanktónu z vnútrozemských vôd.	STN EN 16698
		75 7853

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

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. 02/16

Obsahuje: EN 16698:2015

STN EN 16698: 2016

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.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

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

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of an identical text or by endorsement, at the latest by April 2016, and conflicting national standards shall be withdrawn at the latest by April 2016.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

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