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Standards

Irish Standard Recommendation  
S.R. CEN/TS 16766:2015

# Bio-based solvents - Requirements and test methods

**S.R. CEN/TS 16766:2015**

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English Version

**Bio-based solvents - Requirements and test methods**

Solvants biosourcés - Exigences et méthodes d'essais

Biobasierte Lösemittel - Anforderungen und Prüfverfahren

This Technical Specification (CEN/TS) was approved by CEN on 25 November 2014 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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**CEN/TS 16766:2015 (E)**

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## **Foreword**

This document (CEN/TS 16766:2015) has been prepared by Technical Committee CEN/TC 411 “Bio-based 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 [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a Mandate M/491 [1] given to CEN by the European Commission and the European Free Trade Association, for the development of European Standards for solvents and surfactants in relation to bio-based product aspects. It has been prepared by CEN/TC 411/WG 2 “Bio based solvents”, the secretariat of which is held by the European Solvents Industry Group and NEN.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**CEN/TS 16766:2015 (E)****Introduction**

Bio-based products from forestry and agriculture have a long history of application, such as paper, board and various chemicals and materials. The last decades have seen the emergence of new bio-based products in the market. Some of the reasons for the increased interest lie in the bio-based products' benefits in relation to the depletion of fossil resources and climate change. Bio-based products may also provide additional product functionalities. This has triggered a wave of innovation with the development of knowledge and technologies allowing new transformation processes and product development.

Acknowledging the need for common standards for bio-based products, the European Commission issued mandate M/492<sup>1)</sup>, resulting in a series of standards developed by CEN/TC 411, with a focus on bio-based products other than food, feed and biomass for energy applications.

The standards of CEN/TC 411 "Bio-based products" provide a common basis on the following aspects:

- Common terminology;
- Bio-based content determination;
- Life Cycle Assessment (LCA);
- Sustainability aspects;
- Declaration tools.

It is important to understand what the term bio-based product covers and how it is being used. The term 'bio-based' means 'derived from biomass' [3]. Bio-based products (bottles, insulation materials, wood and wood products, paper, solvents, chemical intermediates, composite materials, etc.) are products which are wholly or partly derived from biomass. It is essential to characterize the amount of biomass contained in the product by for instance its bio-based content or bio-based carbon content.

The bio-based content of a product does not provide information on its environmental impact or sustainability, which may be assessed through LCA and sustainability criteria. In addition, transparent and unambiguous communication within bio-based value chains is facilitated by a harmonized framework for certification and declaration. This Technical Specification has been developed with the aim to fulfil part of a Mandate [1] to describe the technical requirements of bio-based solvents in relation to bio-based product aspects.

Solvents are liquids which have the ability to dissolve, suspend or extract other materials. In Europe, thousands of producers and manufacturers and more than 10 million workers use solvents every day. The solvent producing industry is composed of both small and medium-sized enterprises as well as multinationals. Downstream users generally tend to be SMEs and micro-SMEs.

Solvents are mainly produced from fossil feedstock. The amount of fossil feedstock used for solvent production is however low with less than 1 % of the total world's fossil feedstock consumption (see [www.esig.be](http://www.esig.be)).

This document describes the approach that can be taken in describing the technical requirements of bio-based solvents in relation to bio-based product for the customers using bio-based solvents. This document examines how to prove the criteria for "bio-based solvents". The purpose of this document is to define how the criteria of performance, health, safety and environment can be determined (measured and calculated) for the

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1) A Mandate is a standardization task embedded in European trade laws. Mandate M/492 is addressed to the European Standardization bodies, CEN, CENELEC and ETSI, for the development of horizontal European Standards for bio-based products.

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