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NSAI Standards

Irish Standard
I.S. EN 16466-3:2013

Vinegar - Isotopic analysis of acetic acid and water - Part 3: ^{18}O-IRMS analysis of water in wine vinegar

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English Version

Vinegar - Isotopic analysis of acetic acid and water - Part 3: ^{18}O-IRMS analysis of water in wine vinegar

Vinaigre - Analyse isotopique de l'acide acétique et de l'eau - Partie 3: Analyse SMRI-^{18}O de l'eau dans le vinaigre de vin

Essig - Isotopenanalyse von Essig und Wasser - Teil 3: ^{18}O-IRMS-Analyse von Wasser in Weinessig

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Foreword

This document (EN 16466-3:2013) has been based on an international collaborative study of the method published in Analytica Chimica Acta 649 (2009) 98-105, and organised under the auspices of the Permanent International Vinegar Committee (CPIV, Brussels).

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of an identical text or by endorsement, at the latest by July 2013, and conflicting national standards shall be withdrawn at the latest by July 2013.

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.

The European standard, *Vinegar — Isotopic analysis of acetic acid and water*, consists of the following parts:

— *Part 1: ^{2}H-NMR analysis of acetic acid*;

— *Part 2: ^{13}C-IRMS analysis of acetic acid*;

— *Part 3: ^{18}O-IRMS analysis of water*.

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Introduction

Wine vinegar is defined by the European Regulations 479/2008 and 491/2009 as the product obtained exclusively from the acetous fermentation of wine, which is in turn defined as the product exclusively obtained from the alcoholic fermentation of fresh grapes, whether crushed or not, or of grape must.

In accordance with this, it is clear that the production of wine vinegar by fermenting dried grapes and rehydrating with tap water is not allowed by European Regulations.

The isotopic analysis of water from vinegar by ^{18}O-IRMS enables the distinction of wine vinegar and vinegars from fermented dried grapes which have been rehydrated with water [1], and more generally helps to check the authenticity of wine vinegar.

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