



**NSAI**  
Standards

Irish Standard  
I.S. EN 16274:2012

Methods for analysis of allergens -  
Quantification of suspected fragrance  
allergens in consumer products - Step 1:  
GC analysis of ready-to-inject sample

## I.S. EN 16274:2012

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English Version

**Methods for analysis of allergens - Quantification of suspected  
fragrance allergens in consumer products - Step 1: GC analysis  
of ready-to-inject sample**

Méthodes d'analyse des allergènes - Quantification des  
fragrances allergènes suspectées dans les produits de  
consommation - Étape 1 : Analyse par GC d'échantillons  
prêts à être injectés

Analyseverfahren für Allergene - Quantifizierung von  
mutmaßlichen Allergie auslösenden Duftstoffen in  
Verbrauchsgütern - Stufe 1: GC-Analyse von  
einspritzfertigen Proben

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## **Foreword**

This document (EN 16274:2012) has been prepared by Technical Committee CEN/TC 347 “Methods for analysis of allergens”, the secretariat of which is held by DS.

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of an identical text or by endorsement, at the latest by March 2013, and conflicting national standards shall be withdrawn at the latest by March 2013.

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## **Introduction**

Human skin exposure to suspected allergenic fragrances can occur through diverse sources such as detergents and cosmetics intended to be rinsed or not. As a result of their possible effect, 26 fragrance substances have been restricted under Council Directives with labelling requirements in order to insure a high level of protection of consumers, particularly for sensitive population.

In this context, several analytical methods have been developed to detect and determine their presence in cosmetics such as Gas Chromatography/Flame Ionisation Detector (GC-FID), Gas Chromatography/Mass Spectrometry (GC-MS), comprehensive GC or MS-MS in raw materials and finished products.

The present analytical method uses GC-MS by combination of two GC columns of different polarity with a dedicated methodology for quantification [1]. This allows separation and quantification of the 24 volatile suspected allergens above 0,001 % (10 mg/kg) of each, in ready-to-inject sample from a cosmetic ingredient or product matrix. The present protocol has been validated thanks to a ring test [2].

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