



NSAI
Standards

Irish Standard
I.S. EN ISO 21258:2010

Stationary source emissions - Determination of the mass concentration of dinitrogen monoxide (N₂O) - Reference method: Non-dispersive infrared method (ISO 21258:2010)

I.S. EN ISO 21258:2010

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I.S. EN ISO 21258:2010

EUROPEAN STANDARD

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English Version

Stationary source emissions - Determination of the mass concentration of dinitrogen monoxide (N₂O) - Reference method: Non-dispersive infrared method (ISO 21258:2010)

Émissions de sources fixes - Détermination de la concentration massique de protoxyde d'azote (N₂O) -
Méthode de référence: Méthode infrarouge non dispersive
(ISO 21258:2010)

Emissionen aus stationären Quellen - Bestimmung der Massenkonzentration von Distickstoffmonoxid (N₂O) -
Referenzverfahren: Nicht-dispersives Infrarot-Verfahren
(ISO 21258:2010)

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Foreword

This document (EN ISO 21258:2010) has been prepared by Technical Committee ISO/TC 146 "Air quality" in collaboration with Technical Committee CEN/TC 264 "Air quality" 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of an identical text or by endorsement, at the latest by December 2010, and conflicting national standards shall be withdrawn at the latest by December 2010.

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I.S. EN ISO 21258:2010
**INTERNATIONAL
STANDARD**

**ISO
21258**

First edition
2010-06-15

**Stationary source emissions —
Determination of the mass concentration
of dinitrogen monoxide (N₂O) —
Reference method: Non-dispersive
infrared method**

*Émissions de sources fixes — Détermination de la concentration
massique de protoxyde d'azote (N₂O) — Méthode de référence:
Méthode infrarouge non dispersive*



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ISO 21258:2010(E)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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ISO 21258 was prepared by Technical Committee ISO/TC 146, *Air quality*, Subcommittee SC 1, *Stationary source emissions*.

Introduction

Dinitrogen monoxide (N_2O , also known as nitrous oxide) is an important greenhouse gas with a global warming potential 310 times that of carbon dioxide (CO_2). N_2O is of both natural and anthropogenic origin. Increased emissions of N_2O have been observed, for example, in the exhaust gas of combustion processes using nitrogenous fuels at temperatures below 900 °C, and in the reduction of NO_x using the selective non-catalytic reduction (SNCR) process, in particular when urea is used. There is considerable uncertainty over current N_2O emissions, which is reflected in the wide range of emission factors cited. The largest uncertainties are for emissions from natural and agricultural sources, which are difficult to measure accurately. In the past, emissions from stationary sources such as coal-fired plants and industry were overestimated due to a serious artefact in the grab-sampling methodology used to measure emissions. N_2O is involved in the EU emission trading scheme along with CO_2 and methane (CH_4).

Improved measurement techniques are helping to reduce uncertainties in emission estimates. Improved measurement techniques are also a prerequisite for accurate information on N_2O and its potential role in the enhanced greenhouse effect.

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