

Analýza zemného plynu Obsah halogénov v biometáne Časť 1: Obsah HCl a HF iónovou chromatografiou (ISO 2611-1: 2024)

STN EN ISO 2611-1

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Analysis of natural gas - Halogen content of biomethane - Part 1: HCl and HF content by ion chromatography (ISO 2611-1:2024)

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

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Analysis of natural gas - Halogen content of biomethane - Part 1: HCl and HF content by ion chromatography (ISO 2611-1:2024)

Analyse du gaz naturel - Teneur en halogènes du biométhane - Partie 1: Détermination de la teneur en HCl et HF par chromatographie ionique (ISO 2611-1:2024)

Analyse von Erdgas - Biomethan Bestimmung von halogenierten Verbindungen - Teil 1: HCl und HF Anteil durch Ionenchromatographie (ISO 2611-1:2024)

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EN ISO 2611-1:2024 (E)

European foreword

This document (EN ISO 2611-1:2024) has been prepared by Technical Committee ISO/TC 193 "Natural gas" in collaboration with Technical Committee CEN/TC 408 "Natural gas and biomethane for use in transport and biomethane for injection in the natural gas grid" the secretariat of which is held by AFNOR.

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International Standard

ISO 2611-1

Analysis of natural gas — Halogen content of biomethane —

Part 1: **HCl and HF content by ion chromatography**

Analyse du gaz naturel — Teneur en halogènes du biométhane — Partie 1: Détermination de la teneur en HCl et HF par chromatographie ionique First edition 2024-04



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Foreword

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This document was prepared by Technical Committee ISO/TC 193, *Natural gas*, Subcommittee SC 1, *Analysis of natural gas*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 408, *Biomethane for use in transport and injection in natural gas pipelines*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 2611 series can be found on the ISO website.

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Introduction

A method for measuring hydrogen chloride (HCl) and hydrogen fluoride (HF) in biomethane is described based on the absorption of these components on an alkali-impregnated quartz fibre filtre. The anions chloride and fluoride are then analysed by ion chromatography with conductimetric detection. The concentrations are expressed in equivalent hydrochloric acid and hydrofluoric acid at appropriate reference conditions.

Analysis of natural gas — Halogen content of biomethane —

Part 1:

HCl and HF content by ion chromatography

1 Scope

This document specifies a method for the determination of the concentration of hydrochloric acid (HCl) and hydrofluoric acid (HF) in biomethane, after absorption on an alkali-impregnated quartz fibre filtre or in a sorbent trap, by ion chromatography (IC) with conductimetric detection.

The method is applicable to biomethane for concentration levels for HCl from 0.07 mg/m^3 to 35 mg/m^3 and for HF from 0.07 mg/m^3 to 20 mg/m^3 .

Unless stated otherwise, all concentrations in this document are given under standard reference conditions (see ISO 13443). Other conditions can be applied.

This method is also applicable to biogas. This method is intended to support conformity assessment of biomethane and biogas according to specifications, such as the EN 16723 series.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3696, Water for analytical laboratory use — Specification and test methods

ISO 6974-1, Natural gas — Determination of composition and associated uncertainty by gas chromatography — Part 1: General guidelines and calculation of composition

ISO 6974-2, Natural gas — Determination of composition and associated uncertainty by gas chromatography — Part 2: Uncertainty calculations

ISO 6974-3, Natural gas — Determination of composition and associated uncertainty by gas chromatography — Part 3: Precision and bias

ISO 6976, Natural gas — Calculation of calorific values, density, relative density and Wobbe indices from composition

ISO 10304-1, Water quality — Determination of dissolved anions by liquid chromatography of ions — Part 1: Determination of bromide, chloride, fluoride, nitrate, nitrite, phosphate and sulfate

ISO 14532, *Natural gas* — *Vocabulary*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN