ICS 75.060 SLOVENSKÁ TECHNICKÁ NORMA August 2024

STN	**Analýza zemného plynu Obsah halogénov v biometáne Časť 1: Obsah HCl a HF iónovou chromatografiou (ISO 2611-1: 2024)**	**STN EN ISO 2611-1** 38 6135

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.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/24

Obsahuje: EN ISO 2611-1:2024, ISO 2611-1:2024

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 2611-1

April 2024

ICS 75.060

English Version

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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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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.

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of an identical text or by endorsement, at the latest by October 2024, and conflicting national standards shall be withdrawn at the latest by October 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 2611-1:2024 has been approved by CEN as EN ISO 2611-1:2024 without any modification.

International Standard

ISO 2611-1

First edition
2024-04

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

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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.

International Standard **ISO 2611-1:2024(en)**

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*