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Analysis of natural gas - Biomethane - Determination of the content of compressor oil (ISO 2615:2024)

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

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Analysis of natural gas - Biomethane - Determination of the content of compressor oil (ISO 2615:2024)

Analyse du gaz naturel - Biométhane - Détermination de la teneur en huile de compresseur (ISO 2615:2024)

Erdgas - Analyse von Biomethan - Bestimmung des Gehalts an Verdichteröl (ISO 2615:2024)

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EN ISO 2615:2024 (E)

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European foreword

This document (EN ISO 2615:2024) 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of an identical text or by endorsement, at the latest by November 2024, and conflicting national standards shall be withdrawn at the latest by November 2024.

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Endorsement notice

The text of ISO 2615:2024 has been approved by CEN as EN ISO 2615:2024 without any modification.



International Standard

ISO 2615

Analysis of natural gas — Biomethane — Determination of the content of compressor oil

*Analyse du gaz naturel — Biométhane — Détermination de la
teneur en huile de compresseur*

**First edition
2024-04**

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ISO 2615:2024(en)

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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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, *Natural gas and biomethane for use in transport and biomethane for injection in the natural gas grid*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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ISO 2615:2024(en)**Introduction**

This document supports the implementation of specifications for biomethane and biogas such as ISO 15403-1 or the EN 16723 series^{[9],[10]} when used in the natural gas grids and when used as a transport fuel. Implementation of these specifications require fit-for-purpose measurement methods with known performance and acceptable metrological traceability to support the trade in renewable gases and conformity assessment.

Analysis of natural gas — Biomethane — Determination of the content of compressor oil

1 Scope

This document gives general guidance for the sampling and gas chromatographic analysis of compressor oil in biomethane or compressed natural gas (CNG). The compressor oil mass fraction is determined by sampling on coalescing filters under defined operational conditions (the two first cubic meters of gas referring to standard conditions, delivered at a refuelling station).

Compressor oils are lubricants used in mechanical devices where the purpose is to reduce the volume and increase the pressure of gases for use in a variety of applications.

The method is solely applicable to compressed gas ($p > 18$ MPa).

The compressor oil content is expressed as mass fraction. The scope of this method is from 3 mg/kg – 30 mg/kg.

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/IEC Guide 98-3, *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*

ISO 6974 (all parts), *Natural gas — Determination of composition and associated uncertainty by gas chromatography*

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

ISO/IEC 17025:2017, *General requirements for the competence of testing and calibration laboratories*

ISO 14532, *Natural gas — Vocabulary*

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