**Doc: PCD 01 (23354) F**

***भारतीय मानक***

***Indian Standard***

**ISO 6974-4: 2000**

[**IS 15130 (Part 4): 2024**](https://www.services.bis.gov.in/php/BIS_2.0/StandardsFormulationV2/Upload3.php?ID=UUhaazE3ZldpOHl6TG9tS3dnbndDdz09)

***प्राकृतिक गैस - गैस क्रोमैटोग्राफी द्वारा***

***संरचना और परिभाषित अनिश्चितता का निर्धारण***

***– भाग 4 दो कॉलम का उपयोग करके एक***

***प्रयोगशाला और ऑनलाइन माप प्रणाली के***

***लिए नाइट्रोजन, कार्बन डाइऑक्साइड और सी1***

***से सी5और सी6+हाइड्रोकार्बन का निर्धारण***

**(पहला पुनरीक्षण*)***

**NATURAL GAS — DETERMINATION**

**OF COMPOSITION WITH DEFINED**

**UNCERTAINTY BY GAS CHROMATOGRAPHY**

**— PART 4 DETERMINATION OF NITROGEN,**

**CARBON DIOXIDE AND C1TO C5AND C6+**

**HYDOCARBONS FOR A LABORATORY**

**AND ON-LINE MEASURING SYSTEM**

**USING TWO COLUMNS**

**(First Revision)**

ICS 75.060

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

मानक भवन, 9 बहादुर शाह ज़फर मार्ग, नई दिल्ली - 110002

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG

NEW DELHI - 110002

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**July 2024 Price Group X**

Methods of Sampling and Test for Petroleum and Related Products of Natural or Synthetic Origin (excluding bitumen) Sectional Committee, PCD 01

NATIONAL FOREWORD

This Indian Standard which is identical with ISO 6974-4:2000 ‘Natural gas — Determination of composition with defined uncertainty by gas chromatography Part 4: Determination of nitrogen, carbon dioxide and C1 to C5 and C6+ hydrocarbons for a laboratory and on-line measuring system using two columns’ issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Methods of Sampling and Test for Petroleum and Related Products of Natural or Synthetic Origin (excluding bitumen) Sectional Committee and approval of the Petroleum, Coal and Related Products Division Council.

This standard was originally published in 2002 and was an adoption of ISO 6974-4:2000 ‘Natural gas — Determination of composition with defined uncertainty by gas chromatography Part 4: Determination of nitrogen, carbon dioxide and C1 to C5 and C6+ hydrocarbons for a laboratory and on-line measuring system using two columns’. Consequent to the revision of reference standards in ISO 6974-4:2000, the Committee decided to revise it to completely align with the latest version of reference standards.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.

b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

The other parts in this series of standard consist of the following individual parts of IS 15130.

Part 1: Guidelines for Tailored Analysis

Part 2: Uncertainty Calculations

Part 3: Precision and Bias

Part 4: Determination of Nitrogen, Carbon Dioxide and C1 to C5 and C6+ Hydrocarbons for a Laboratory and On-line Measuring System Using Two Columns

Part 5: Determination of Nitrogen Carbon Dioxide and C1 to C5 and C6 Hydrocarbons for a Laboratory and On-line Process Application Using Three Columns

In this adopted standard, reference appears to certain International Standard for which Indian Standard also exist. The corresponding Indian Standard, which is to be substituted in their respective places, is listed below along with their degree of equivalence for the editions indicated:

|  |  |  |
| --- | --- | --- |
| *International Standard* | *Corresponding Indian Standard* | *Degree of Equivalence* |
| [ISO 6142](https://www.iso.org/obp/ui/en/#iso:std:iso:6142:en), Gas analysis — Preparation of calibration gas mixtures — Gravimetric method | IS 16260 : 2019 / ISO 6142-1:2015 — Gas analysis - Preparation of calibration gas mixtures - Gravimetric method for class 1 mixtures (*first revision*) | Identical |
| [ISO 6143](https://www.iso.org/obp/ui/en/#iso:std:iso:6143:en), Gas analysis — Determination of the composition of calibration gas mixtures — Comparison methods. | IS 16264 : 2014 / ISO 6143 : 2001 — Gas analysis - Comparison methods for determining and checking the composition of calibration gas mixtures | Identical |
| [ISO 6974-1:2000](https://www.iso.org/obp/ui/en/#iso:std:iso:6974:-1:ed-1:en), Natural gas — Determination of composition with defined uncertainty by gas chromatography — Part 1: Guidelines for tailored analysis. | IS 15130 (Part 1) : 2017 / ISO 6974-1 : 2012 — Natural Gas - Determination of composition and associated Uncertainty by gas chromatography — part 1: General  guidelines and calculation of composition (*first revision*) | Identical |
| ISO 6974-2: 2012, Natural gas — Determination of composition with defined uncertainty by gas chromatography — Part 2: Measuring-system characteristics and statistics for data treatment. | IS 15130 (Part 2): 2021 / ISO 6974-2: 2012 — Natural Gas - Determination of Composition and Associated Uncertainty by Gas Chromatography Part 2 Uncertainty Calculations (*first revision*) | Identical |

The technical committee has reviewed the provisions of the following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard:

|  |  |
| --- | --- |
| *International Standard* | *Title* |
| ISO 7504: 1984 | Gas analysis — Vocabulary |

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’.