**Doc: PCD 01 (23296) F**

***भारतीय मानक***

***Indian Standard***

**ISO 6974-1: 2012**

[**IS 15130 (Part 1): 2024**](https://www.services.bis.gov.in/php/BIS_2.0/StandardsFormulationV2/Upload3.php?ID=UUhaazE3ZldpOHl6TG9tS3dnbndDdz09)

***प्राकृतिक गैस – गैस वर्णलेखी पद्धति द्वारा***

***निर्धारित संयोजन की अनिश्चितता ज्ञात करना***

***भाग 1 अनुकूलित विश्लेषण के लिए मार्गदर्शी सिद्धान्त* (दूसरा पुनरीक्षण*)***

**NATURAL GAS — DETERMINATION OF**

**COMPOSITION AND ASSOCIATED**

**UNCERTAINTY BY GAS CHROMATOGRAPHY**

**— PART 1: GENERAL GUIDELINES**

**AND CALCULATION OF COMPOSITION (Second Revision)**

ICS 75.060

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

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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 6974-1:2012 ‘Natural gas — Determination of composition and associated uncertainty by gas chromatography Part 1: General guidelines and calculation of composition’ 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 first published in 2002 which was an adoption of ISO 6974-1: 2000 ‘Natural gas — Determination of composition with defined uncertainty by gas chromatography — Part 1: Guidelines for tailored analysis.’ First revision was published in 2017 and was an adoption of ISO 6974-1:2012. Consequent to the revision of reference standards in ISO 6974-1:2012, the Committee decided to revise it to completely align with the latest version of reference standards and Corresponding Indian Standard.

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 6143](https://www.iso.org/obp/ui/en/#iso:std:iso:6143:en), Gas analysis — Comparison methods for determining and checking the composition of calibration gas mixtures | IS 16264: 2014 / ISO 6143: 2001 — Gas analysis — Comparison methods for determining and checking the composition of calibration gas mixtures | Identical |
| [ISO 10723](https://www.iso.org/obp/ui/en/#iso:std:iso:10723:en), Natural gas — Performance evaluation for on-line analytical systems | IS 15128: 2020 / ISO 10723: 2012 — Natural Gas — Performance Evaluation for Analytical Systems (*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 98-3 | Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995) |

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*)’.