

**The Appendix is an integral part of  
Certificate of Accreditation No. 694/2023 of 28/12/2023**

**Accredited entity according to ČSN EN ISO 17034:2017:**

**Český metrologický institut**  
CAB Number 7502, CMI Reference Materials Producer  
Okružní 31, 638 00 Brno

**Workplaces of Reference Materials Producer:**

1. **RMP Branch Praha**    Radiová 1136/3, 102 00 Praha
2. **RMP Branch Brno**    Okružní 31, 638 00 Brno

1. **RMP Branch Praha**

**Reference materials:**

| Ordinal number                   | Matrix, artefact type                             | Nominal properties / characterized properties |                     | Assignment of property values incl. measurements method   |
|----------------------------------|---|---|---------------------|---|
| <b>CRM / Chemical substances</b> |   |   |                     |   |
| 1                                | Synthetic natural gas<br>(Primary/Secondary CRMs) | Nitrogen                                      | 0,2 – 10 cmol/mol   | Gravimetric preparation from pure materials <sup>a)</sup> |
|                                  |   | Carbon dioxide                                | 0,1 – 5 cmol/mol    | Gravimetric preparation from pure materials <sup>a)</sup> |
|                                  |   | Methane                                       | 70 – 98 cmol/mol    | Gravimetric preparation from pure materials <sup>a)</sup> |
|                                  |   | Ethan   | 0,4 – 1 cmol/mol    | Gravimetric preparation from pure materials <sup>a)</sup> |
|                                  |   | Propane                                       | 0,1 – 2 cmol/mol    | Gravimetric preparation from pure materials <sup>a)</sup> |
|                                  |   | 2-methylpropane                               | 0,04 – 0,1 cmol/mol | Gravimetric preparation from pure materials <sup>a)</sup> |
|                                  |   | Butane  | 0,04 – 0,1 cmol/mol | Gravimetric preparation from pure materials <sup>a)</sup> |
|                                  |   | 2-metylbutane                                 | 0,02 – 0,2 cmol/mol | Gravimetric preparation from pure materials <sup>a)</sup> |
|                                  |   | Pentane                                       | 0,02 – 0,2 cmol/mol | Gravimetric preparation from pure materials <sup>a)</sup> |
|                                  |   | 2,2-dimethylpropane                           | 0,02 – 0,2 cmol/mol | Gravimetric preparation from pure materials <sup>a)</sup> |
|                                  |   | Hexane  | 0,01 – 0,1 cmol/mol | Gravimetric preparation from pure materials <sup>a)</sup> |
| 2                                | Ethanol in nitrogen<br>(Primary/Secondary CRMs)   | Ethanol                                       | 50 – 800 μmol/mol   | Gravimetric preparation from pure materials <sup>a)</sup> |

**Explanatory notes:**

cmol/mol is equivalent to 10<sup>-2</sup> mol/mol  
μmol/mol is equivalent to 10<sup>-6</sup> mol/mol

<sup>a)</sup> analytical verification by gas chromatography (GC-TCD/FID)

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**Reference materials:**

| Ordinal number                   | Matrix, artefact type                      | Nominal properties / characterized properties |                | Assignment of property values incl. measurements method |
|----------------------------------|--|---|----------------|---|
| <b>CRM / Chemical substances</b> |  |   |                |   |
| 1                                | Aqueous solutions (Primary/Secondary CRMs) | pH  | 1,679 – 10,012 | Measurement by primary/secondary standard <sup>a)</sup> |
| 2                                | Aqueous solutions (Primary/Secondary CRMs) | Electric conductivity                         | 0,005 – 12 S/m | Measurement by primary/secondary standard <sup>b)</sup> |

**Explanatory notes:**

<sup>a)</sup> analytical verification by potentiometry

<sup>b)</sup> analytical verification by conductometry