AMENDMENT NO. 1 NOVEMBER 2024

TO

IS 16260 : 2019 GAS ANALYSIS — PREPARATION OF CALIBRATION GAS MIXTURES — GRAVIMETRIC METHOD FOR CLASS I MIXTURES

(First Revision)

This Amendment No. 1 is identical to Amendment No. 1 of ISO 6142-1, 'Gas analysis — Preparation of calibration gas mixtures: Part 1 Gravimetric method for Class I mixtures' issued in 2020 by International Organization for Standardization (ISO).

Price Group 2

Gas analysis — Preparation of calibration gas mixtures —

Part 1:
Gravimetric method for Class I mixtures

AMENDMENT 1: Corrections to formulae in Annex E and Annex G

Annex E, Formulae (E.3) and (E.4)

Replace Formula (E.3) with the following:

$$M_i = \sum_{z=1}^{Z} \nu_{z,i} A_z$$

Replace Formula (E.4) with the following:

$$u^2(M_i) = \sum_{z=1}^{Z} \nu_{z,i}{}^2 u^2(A_z)$$

Annex G, Formulae (G.1), (G.2), (G.3), (G.4), (G.5). (G.6) and (G.7)

Replace Formula (G.1) with the following:

$$\frac{\partial y_k}{\partial m_j} = \frac{1}{n_\Omega} \frac{x_{k,j}}{M_j} - \frac{n_k}{n_\Omega^2} \frac{1}{M_j}$$

Replace Formula (G.2) with the following:

$$\frac{\partial y_k}{\partial M_i} = -\frac{1}{n_\Omega} \sum_{j=1}^{r} \frac{x_{k,j} m_j}{M_j^2} x_{ij} + \frac{n_k}{n_\Omega^2} \sum_{j=1}^{r} \frac{m_j}{M_j^2} x_{i,j}$$

Replace Formula (G.3) with the following:

$$\frac{\partial y_k}{\partial x_{i,j}} = -\frac{1}{n_\Omega} \frac{x_{k,j} m_j}{M_j^2} M_i + \frac{n_k}{n_\Omega^2} \frac{m_j}{M_j^2} M_i \quad (\text{for } i \neq k)$$

Replace Formula (G.4) with the following:

$$\frac{\partial y_k}{\partial x_{k,j}} = \frac{1}{n_\Omega}\left(-\frac{x_{k,j} m_j}{M_j^2} M_k + \frac{m_j}{M_j} \right) + \frac{n_k}{n_\Omega^2} \frac{m_j}{M_j^2} M_i$$

Replace Formula (G.5) with the following:

$$n_k = \sum_{j=1}^{r} \frac{x_{k,j} m_j}{M_j}$$

Replace Formula (G.6) with the following:

$$n_\Omega = \sum_{j=1}^{r} \frac{m_j}{M_j}$$

Replace Formula (G.7) with the following:

$$M_j = \sum_{i=1}^{q} x_{i,j} M_i$$

(CHD 06)

Publication, BIS, New Delhi