Form 36

DPC: 20/30419854 DC

BSI Group Headquarters

389 Chiswick High Road London W4 4AL

Tel: +44 (0)20 8996 9000
Fax: +44 (0)20 8996 7400
www.bsigroup.com

Date: 14 July 2020
Origin: International

Latest date for receipt of comments: 06 September 2020

Project No. 2020/01165

Responsible committee: PTI/15 Natural Gas and Gas Analysis

Interested committees:

Title: Draft BS ISO 6142-1 Amendment 1 - Gas analysis — Preparation of calibration gas mixtures. Part 1: Gravimetric method for Class I mixtures.

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

i) has any issues related to 3rd party IPR, patent or copyright
ii) affects other national standard(s)
iii) requires additional national guidance or information

WARNING: THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A BRITISH STANDARD. THIS DRAFT IS NOT CURRENT BEYOND 06 September 2020

This draft is issued to allow comments from interested parties; all comments will be given consideration prior to publication. No acknowledgement will normally be sent. **See overleaf for information on the submission of comments.**

Further copies of this draft may be purchased from BSI Shop http://shop.bsigroup.com or from BSI Customer Services, Tel: +44(0) 20 8996 9001 or email cservices@bsigroup.com. British, International and foreign standards are also available from BSI Customer Services.

Information on the co-operating organizations represented on the committees referenced above may be obtained from https://standardsdevelopment.bsigroup.com/.

Responsible Committee Secretary: Mr Bernard N Shelley (BSI)
Direct tel: 020 8996 7217
E-mail: bernard.shelley@bsigroup.com

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at **https://standardsdevelopment.bsigroup.com/**. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx

1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex **(e.g. 3.1)**	Paragraph/Figure/ Table/Note	**Type of comment**	**Commend (justification for change) by the MB**	**Proposed change by the MB**	**Secretariat observations on each comment submitted**
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

DRAFT AMENDMENT
ISO 6142-1:2015/DAM 1

ISO/TC **158** Secretariat: **NEN**

Voting begins on:
2020-07-14

Voting terminates on:
2020-10-06

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

Analyse des gaz — Préparation des mélanges de gaz pour étalonnage —

Partie 1: Méthode gravimétrique pour les mélanges de Classe I

AMENDEMENT 1: Corrections formules à l'annexe E et l'annexe G

ICS: 71.040.40

This document is circulated as received from the committee secretariat.

Reference number
ISO 6142-1:2015/DAM 1:2020(E)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 158, *Analysis of Gases*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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

Formula (E.3) *should read as:*

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

replacing:

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

Formula (E.4) *should read as:*

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

replacing:

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

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

Formula (G.1) *should read as:*

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

replacing:

$$\frac{\partial y_k}{\partial m_j} = \frac{1}{n_\Omega} \frac{x_{kj}}{\bar{M}_j} - \frac{n_k}{n_\Omega^2} \frac{1}{\bar{M}_j}$$

Formula (G.2) *should read as:*

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

replacing:

$$\frac{\partial y_k}{\partial M_i} = -\frac{1}{n_\Omega}\sum_{j=1}^{p}\frac{x_{kj}m_j}{\bar{M}_j^2}x_{ij} + \frac{n_k}{n_\Omega}\sum_{j=1}^{p}\frac{m_j}{\bar{M}_j^2}x_{ij}$$

Formula (G.3) *should read as:*

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

replacing:

$$\frac{\partial y_k}{\partial x_{ij}} = -\frac{1}{n_\Omega}\frac{x_{kj}m_j}{\bar{M}_j^2}M_i + \frac{n_k}{n_\Omega^2}\frac{m_j}{\bar{M}_j^2}M_i \quad (\text{for } i \neq k)$$

Formula (G.4) *should read as:*

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

replacing:

$$\frac{\partial y_k}{\partial x_{kj}} = \frac{1}{n_\Omega}\left(-\frac{x_{kj}m_j}{\bar{M}_j^2}M_k + \frac{m_j}{\bar{M}_j}\right) + \frac{n_k}{n_\Omega^2}\frac{m_j}{\bar{M}_j^2}M_i$$

Formula (G.5) *should read as:*

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

replacing:

$$n_k = \sum_{j=1}^{p}\frac{x_{kj}m_j}{M_j}$$

Formula (G.6) *should read as:*

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

replacing:

$$n_{\Omega} = \sum_{j=1}^{p} \frac{m_j}{\bar{M}_j}$$

Formula (G.7) *should read as:*

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

replacing:

$$\bar{M}_j = \sum_{i=1}^{q} x_{ij} M_i$$