

DIN EN ISO 23320



ICS 13.040.30

Supersedes
DIN EN 838:2010-05

**Workplace air –
Gases and vapours –
Requirements for evaluation of measuring procedures using diffusive
samplers (ISO 23320:2022);
English version EN ISO 23320:2022,
English translation of DIN EN ISO 23320:2022-08**

Luft am Arbeitsplatz –
Gase und Dämpfe –
Anforderungen an die Evaluierung von Messverfahren mit Diffusionssammlern
(ISO 23320:2022);
Englische Fassung EN ISO 23320:2022,
Englische Übersetzung von DIN EN ISO 23320:2022-08

Air des lieux de travail –
Gazes et vapeurs –
Exigences pour l'évaluation des procédures pour le mesurage à l'aide de dispositifs de
prélèvement par diffusion (ISO 23320:2022);
Version anglaise EN ISO 23320:2022,
Traduction anglaise de DIN EN ISO 23320:2022-08

Document comprises 49 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.

A comma is used as the decimal marker.

National foreword

This document (EN ISO 23320:2022) has been prepared by Technical Committee ISO/TC 146 “Air quality”, Subcommittee SC 2 “Workplace atmospheres” in collaboration with Technical Committee CEN/TC 137 “Assessment of workplace exposure to chemical and biological agents” (Secretariat: DIN, Germany).

The responsible German body involved in its preparation was *DIN-Normenausschuss Sicherheitstechnische Grundsätze* (DIN Standards Committee Safety Design Principles), Working Committee NA 095-03-01 AA “Measurement strategies and requirements for test methods”.

The DIN documents corresponding to the documents referred to in this document are as follows:

ISO 3534-1:2006	DIN ISO 3534-1:2009-10
ISO 6141	DIN EN ISO 6141
ISO 6143	DIN EN ISO 6143
ISO 6144	DIN EN ISO 6144
ISO 6145-1	DIN EN ISO 6145-1
ISO 6145-4	DIN EN ISO 6145-4
ISO 6145-6	DIN EN ISO 6145-6
ISO 6145-10	DIN EN ISO 6145-10
ISO 8655-2	DIN EN ISO 8655-2
ISO 8655-6	DIN EN ISO 8655-6
ISO 16017-2	DIN EN ISO 16017-2
ISO 20581	DIN EN 482
ISO 22065	DIN EN ISO 22065

For current information on this document, please go to DIN’s website (www.din.de) and search for the document number in question.

Amendments

This standard differs from DIN EN 838:2010-05 as follows:

- a) the title of the standard has been slightly changed;
- b) a note has been included in the Scope that this document addresses requirements for method developers and/or manufacturers;
- c) in Clause 5, the specification of the Type A sampler has been changed;
- d) in 8.2.2, the requirement for the orientation of the sampler to investigate the influence of air velocity on the detected mass concentration of the analyte has been modified;
- e) in 8.3.2.1, the calculation basis for the detection limit has been changed;

- f) the calculation of uptake rates using diffusion coefficients has been moved from the normative text to a new informative Annex C;
- g) the standard temperature for test methods for samplers has been changed from $(20 \pm 2) ^\circ\text{C}$ to $20 ^\circ\text{C}$ to $25 ^\circ\text{C}$;
- h) the standard has been editorially revised.

Previous editions

DIN EN 838: 1995-12, 2010-05

National Annex NA (informative)

Bibliography

DIN EN 482, *Workplace exposure — Procedures for the determination of the concentration of chemical agents — Basic performance requirements*

DIN EN ISO 6141, *Gas analysis — Contents of certificates for calibration gas mixtures (ISO 6141:2015 + Amd. 1:2020)*

DIN EN ISO 6143, *Gas analysis — Comparison methods for determining and checking the composition of calibration gas mixtures (ISO 6143:2001)*

DIN EN ISO 6144, *Gas analysis — Preparation of calibration gas mixtures — Static volumetric method (ISO 6144:2003)*

DIN EN ISO 6145-1, *Gas analysis — Preparation of calibration gas mixtures using dynamic methods — Part 1: General aspects (ISO 6145-1:2019)*

DIN EN ISO 6145-4, *Gas analysis — Preparation of calibration gas mixtures using dynamic volumetric methods — Part 4: Continuous syringe injection method (ISO 6145-4:2004)*

DIN EN ISO 6145-6, *Gas analysis — Preparation of calibration gas mixtures using dynamic volumetric methods — Part 6: Critical flow orifices (ISO 6145-6:2017)*

DIN EN ISO 6145-10, *Gas analysis — Preparation of calibration gas mixtures using dynamic volumetric methods — Part 10: Permeation method (ISO 6145-10:2002)*

DIN EN ISO 8655-2, *Piston-operated volumetric apparatus — Part 2: Piston pipettes (ISO 8655-2:2002)*

DIN EN ISO 8655-6, *Piston-operated volumetric apparatus — Part 6: Gravimetric methods for the determination of measurement error (ISO 8655-6:2002)*

DIN EN ISO 16017-2, *Indoor, ambient and workplace air — Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography — Part 2: Diffusive sampling (ISO 16017-2:2003)*

DIN EN ISO 22065, *Workplace air — Gases and vapours — Requirements for evaluation of measuring procedures using pumped samplers (ISO 22065:2020)*

DIN ISO 3534-1:2009-10, *Statistics — Vocabulary and symbols — Part 1: General statistical terms and terms used in probability (ISO 3534-1:2006)*

English Version

Workplace air -
Gases and vapours -
Requirements for evaluation of measuring
procedures using diffusive samplers
(ISO 23320:2022)

Air des lieux de travail -
Gazes et vapeurs -
Exigences pour l'évaluation des procédures pour le mesurage
à l'aide de dispositifs de prélèvement par diffusion
(ISO 23320:2022)

Luft am Arbeitsplatz -
Gase und Dämpfe -
Anforderungen an die Evaluierung von
Messverfahren mit Diffusionssammlern
(ISO 23320:2022)

This European Standard was approved by CEN on 13 March 2022.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels