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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 37180-2018

**Gas analysis -- Handling of calibration gases and gas mixtures
-- Guidelines**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method equivalent to ISO 16664.2017 "Guidelines for the use of pure gas and mixed gases for gas analysis and calibration".

This standard was proposed by the China Petroleum and Chemical Industry Federation.

This standard is under the jurisdiction of the National Gas Standardization Technical Committee (SAC/TC206).

This standard was drafted. Southwest Chemical Research and Design Institute Co., Ltd., Dalian Date Gas Co., Ltd., Tianjin Lianbo Chemical Co., Ltd.

Company, Shaanxi Environmental Monitoring Center Station, Guangdong Huate Gas Co., Ltd., Shanghai Huaai Chromatography Analysis Technology Co., Ltd.

1 Scope

This standard describes factors that may affect the composition of a pure gas or a homogeneous mixture of gases for calibration. This standard only applies to pure gas during the validity period.

Or a mixture of gases. It provides guidance on the handling and use of calibration gases from the following aspects.

- Calibration gas cylinder storage;
- Extract the calibration gas from the cylinder;
- Transfer calibration gas from the cylinder to the calibration point.

This standard also outlines methods for assessing the stability of calibration gases, taking into account the uncertainty of the gas composition given by the certificate and

The measurement uncertainty of the household.

2 Normative references

There are no normative documents in this document.

3 Terms and definitions

The following terms and definitions apply to this document.

ISO and IEC give the terminology database used in standardization at the following URL.

3.1

Calibration gas calibration gas

Pure gas or mixed gas for calibration.

3.2

Calibrate the mixed gas calibration gas mixture

A mixed gas with known stability (3.9) and uniformity (3.4) whose composition has been quasi-determined for calibration or inspection of the measuring instrument

Verification and verification of measurements.

Note. The calibration mixture is a measurement standard (Appendix A) as defined in ISO /IEC Guide 99:2007.

[ISO 7504:2015, 5.1]

3.3

Component component

The chemical composition of a substance or mixture in a defined physical state.

[ISO 7504:2015, 3.3]