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**Gas analysis - Sampling guidelines  
(English Translation)**

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## Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting:

This document is modified to adopt ISO 19230:2020 "Guidelines for Sampling for Gas Analysis":

Compared with ISO 19230:2020, this document has made the following structural adjustments:

---Appendix B corresponds to Appendix D in ISO 19230:2020;

---Appendix C corresponds to Appendix B in ISO 19230:2020;

---Appendix D corresponds to Appendix C in ISO 19230:2020:

The technical differences between this document and ISO 19230:2020 and their reasons are as follows:

---Changed the definition of the term "sampling point" (see 3.28): Because ISO 10715:2022 replaces ISO 10715:1997:

---Change "should" to "should" (see 5.2, 6:2:2, 6:2:3, 6:2:4:1, 6:2:5, 6:2:6, 6:3, 6:4, 7:1, 7:2, 8:1, 8:2:1:1, 8:2:1:2:2, 8:2:1:2:3, 8:2:2:1, 8:2:3, 8:3, 8:4, 8:6:1, 8:7, 8:8, 8:9, 9:2, 9:3, 9:4:1, 9:5:1:2, 9:5:3, 9:5:4 and 9:6) to adapt to my country's technical conditions and increase operability:

The following editorial changes have been made to this document:

---Change "ISO 10286:1997" to "ISO 10286:2021" (see 3.2, 3:3, 3:4, 3:5 and 3:6), "ISO 10715:

1997" is changed to "ISO 10715:2022" (see 3.12, 3:13, 3:21, 3:25 and 3:28), the regulation number of the source of terms and definitions Changes were also made: Because ISO 10286:2021 replaced ISO 10286:1997, the chapter number has also changed:

Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents:

## Introduction

The determination of gas composition, impurity content and physical properties depends to a large extent on sampling technology: Using proper sampling techniques is the A critical aspect of safety and quality assurance in body analysis: The design of the sampling system, the selection of sampling equipment and the construction of the sampling system, the sampling error Poor avoidance and sampling safety are crucial: Any negligence, laxity or mistake will have a negative impact on the gas analysis and measurement results:

have a serious impact and even cause serious safety hazards:

Gas products are usually stored and transported in the form of compressed gas, liquefied gas in containers, or transported through pipelines: Different packaging storage the transportation and transportation methods, the composition of the gas are different, and the sampling methods are also different:

This document will be dedicated to providing technical guidance for the sampling of

packaged gases and piped gases for analytical purposes:

Gas Analysis Sampling Guidelines Warning: The use of this document may involve a variety of dangers: This document does not describe all safety issues that may arise when using it: of this document it is the user's responsibility to establish measures to ensure the safety of gas sampling:

## 1 Scope

This document provides basic terminology definitions and general provisions related to sampling for gas analysis, including sampling equipment, sampling methods, sampling Technology and sampling safety:

This document is applicable to direct sampling and indirect sampling of container packaging gases and pipeline transportation gases: Gases include pure gases and mixed gases:

Gas types include compressed gases and liquefied gases:

This document is applicable to the sampling of pretreated gases and does not involve the gas pretreatment process:

This document does not apply to the sampling of special products referred to in other international standards, such as liquefied petroleum gas (see ISO 4257) and gaseous natural gas (See ISO 10715):

## 2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations for undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document:

Safetyinsampling)

**Note:** GB/T 3723-1999 General Safety Principles for Sampling Industrial Chemical Products (ISO 3165:1976, IDT) ISO 16664 Guide for the use of pure gases and gas mixtures for gas analysis calibration (Gasanalysis-Handlingofcali-Note: GB/T 37180-2018 Guide for the use of pure gases and mixed gases for gas analysis calibration (ISO 16664:2017, IDT)

## 3 Terms and definitions

The following terms and definitions apply to this document:

Gas

A substance that exists completely in gaseous form at 20°C under an absolute pressure of