

ICS 71.100.20
CCS G86



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

GB/T 14851-2025

Replacing GB/T 14851-2009

Electronic specialty gas - Phosphine

电子特气 磷化氢

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. This document replaces GB/T 14851-2009 "Phosphine gas for use in the electronics industry". Compared with GB/T 14851-2009, except for the structure In addition to adjustments and editorial changes, the main technical changes are as follows:

- Changed the technical requirements that phosphine should meet (see Chapter 4, Chapter 3 of the.2009 edition);
- Added a chapter on "Sampling" (see Chapter 5);
- Changed the determination method of oxygen, argon, nitrogen, carbon monoxide, carbon dioxide, methane, other hydrocarbons, and arsenic content (see 6.2, 4.4, 4.5, 4.6 of the.2009 edition);
- Added the determination method of silane and hydrogen sulfide content (see 6.2);
- Changed the method for determining moisture content (see 6.3, 4.8 of the.2009 edition);
- Changed the determination method of metal elements and other elements (see 6.4, 4.9 of the.2009 edition);
- Added the determination method of germane content (see 6.5);
- Added the method for determining particle content (see 6.6);
- Added a chapter on "Inspection Rules" (see Chapter 7);

1 Scope

GB/T 14851-2025 is the Chinese national standard on electronic specialty gas - phosphine,

in the field of chemical technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 28 March 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 October 2025. Classification: ICS 71.100.20, CCS G86. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

23 Gas Cylinder Safety Technical Regulations

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB 190 Dangerous Goods Packaging Marking

GB/T 3723 General safety rules for sampling of industrial chemical products

GB/T 5099 (all parts) Seamless steel gas cylinders

GB/T 5832.3 Determination of trace moisture in gases Part

GB/T 26571 Specification for the storage period of special gases

GB/T 28726 Gas analysis - Helium ionization gas chromatography

GB/T 34972 Determination of metal content in gases for use in the electronics industry - Inductively coupled plasma mass spectrometry TSGR0005 Safety Technical Supervision Regulations for Mobile Pressure Vessels TSG

3 Cavity ring-down spectroscopy

GB/T 7144 Color marking of gas cylinders

GB/T 14193 Regulations for filling liquefied gas cylinders

GB 15258 Provisions for the preparation of chemical safety labels

GB/T 16804 Gas Cylinder Warning Label

GB/T 26570.1 Determination of particle content in gases - Light scattering method - Part

4 Technical requirements

The technical requirements for phosphine shall comply with the provisions of Table 1.

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