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

GB 14544-2025

Replacing GB 14544-2008

**Safety technical specification for production of vinyl chloride
by acetylene**

乙炔法生产氯乙烯安全技术规范

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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 replaces GB 14544-2008 "Safety Technical Regulations for Vinyl Chloride Production via the Calcium Carbide Acetylene Process". Compared with GB 14544-2008, except for... Aside from structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope of application has been changed (see Chapter 1, Chapter 1 of the.2008 edition);
- b) The terms "hot work" and "cooker cleaning" have been removed (see 3.2 in the.2008 edition);

- c) Changes were made to the basic security management (see 4.1, 4.7.1, 5.6, and Chapter 9 of the.2008 edition);
- d) The site selection and layout requirements have been changed (see 4.2, 4.1.1 of the.2008 version);
- e) The requirements for buildings and structures have been changed (see 4.3, 5.1.2 of the.2008 edition);
- f) The requirements for piping and equipment have been changed (see 4.4, 4.6, 5.4.5, 6.3.2, and 7.2.1.5 in the.2008 edition);
- g) Requirements for electrical instrumentation have been added (see 4.5);
- h) The requirements for intelligent management have been added (see 4.6);

1 Scope

GB 14544 governs the acetylene route to vinyl chloride monomer, the process on which much of China's PVC industry runs and which handles three severe hazards at once: acetylene, which detonates without oxygen; hydrogen chloride; and vinyl chloride itself, a flammable gas and a known carcinogen. The standard sets the basic requirements for the plant, the safety requirements for production and for storage, and the emergency response provisions. The 2025 edition replaces GB 14544-2008 and takes account of the shift away from the mercuric chloride catalyst. Issued on 5 October 2025, in force since 1 September 2026. 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 edition it replaces are taken from there. The clause text, the tables and the numeric limits are not reproduced on this page - they are in the document itself, which is delivered in full in English translation.

This document specifies the basic requirements for enterprises producing vinyl chloride using the acetylene process, as well as the requirements for production safety, storage safety, and emergency response. It also describes... The corresponding verification methods. This document applies to the production, storage, and emergency response of vinyl chloride production enterprises using the acetylene process.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 567.2 Rupture disc safety devices - Part

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4.1 Basic Safety Management

4.1.1 In locations where flammable and explosive media such as vinyl chloride, acetylene, and hydrogen are present, explosion-proof tools should be used, and shoes with spikes or those prone to generating static electricity should not be worn.