

ICS 71.060.30
CCS G 11



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

GB 320-2006

Synthetic hydrochloric acid for industrial use

工业用合成盐酸

(English Translation)

Issued on: February 28, 2025

Implemented on: September 1, 2025

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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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 320-2006 "Synthetic hydrochloric acid for industrial use". Compared with GB/T 320-2006, except for structural adjustments and editorial changes, in addition to the modifications, the main technical changes are as follows.

- a) Product quality classification has been deleted (see 3.2 of the 2006 edition);
- b) The technical requirements for industrial synthetic hydrochloric acid products have been changed (see 4.2, 3.2 of the 2006 edition);
- c) Added the number of samples (see 5.2.3);
- d) The method for determining arsenic content has been deleted (see 5.6 and 5.7 of the 2006 edition);
- e) Added potentiometric titration method for determining total acidity (see 6.3.2);
- f) The mass concentration of the iron standard solution in the spectrophotometric determination of iron content (see 6.4.1.2.6, 5.3.2.6 of the 2006 edition) and Addition amount (see 6.4.1.4.1.1, 5.3.4.1.1 of the 2006 edition);
- g) Added ICP method for determination of iron content (see 6.4.2);
- h) The concentration of sodium thiosulfate standard titration solution in the determination of free chlorine content has been changed (see 6.6.2.2, 5.5.2.2 of the 2006 edition);
- i) In "Determination of mass fraction of sulfate", the following is added. "When the absorbance of the sample exceeds the maximum absorbance value of the curve, the Re-measure the sample volume so that the absorbance is within the range of the standard curve" (see 6.7.4.4.3);

- j) The inspection rules have been changed (see Chapter 7, Chapter 6 of the 2006 edition);
- k) The marking has been changed (see 8.1, 7.1 of the 2006 edition);
- l) Added accompanying files (see 8.2);
- m) Transport and storage have been modified (see 9.2, 9.3, 7.3, 7.4 of the 2006 edition).

1 Scope

This document specifies the technical requirements, sampling, test methods, inspection rules and signs, labels and accompanying documents, packaging of industrial synthetic hydrochloric acid.

Packaging, transportation and storage.

This document applies to the production, use and quality control of industrial synthetic hydrochloric acid produced by absorbing hydrogen chloride gas synthesized from chlorine and hydrogen into water.

Quantity control.

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 191 Pictorial markings for packaging, storage and transportation GB/T 601 Preparation of standard titration solutions for chemical reagents GB/T 602 Preparation of standard solutions for determination of impurities in chemical reagents GB/T 603 Preparation of preparations and products used in chemical reagent test methods GB/T 6678 General Principles for Sampling of Chemical Products GB/T 6680 General Rules for Sampling of Liquid Chemical Products GB/T 6682 Specifications and test methods for water used in analytical laboratories GB/T 8170 Rules for rounding off values and expression and determination of limit values GB 15258 Provisions for the preparation of chemical safety labels

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4 Technical requirements

4.1

Appearance. Industrial synthetic hydrochloric acid is a colorless or light yellow transparent liquid.

4.2

The technical indicators of industrial synthetic hydrochloric acid shall comply with the requirements of Table 1.