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

GB/T 686-2023

Replacing GB/T 686-2008

Chemical reagent - Acetone

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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/T 686-2008 "Chemical Reagent Acetone". Compared with GB/T 686-2008, except for structural adjustment and editing

In addition to the modifications, the main technical changes are as follows.

---Added liquid chromatography purity grade, technical requirements, and determination methods (see Chapter 5 and Chapter 6);

---Added technical requirements and measurement methods for density (see Chapter 5, 6.4);

---Changed the determination methods of acetone, moisture, methanol, and ethanol (see 6.2, 6.7, 6.11, 6.12, 2008 edition of 5.2, 5.6, 5.10, 5.11);

---Changed the packaging and logo (see Chapter 8, Chapter 7 of the 2008 edition);

---Deleted the technical requirements and measurement methods of boiling point (see Chapter 4, 5.3 of the 2008 edition).

This document is drafted with reference to ISO 6353-2:1983 "Chemical Analysis Reagents Part 2. Specifications Series 1", and the degree of consistency is not

Equivalent.

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

1 Scope

This document specifies the properties, technical requirements, test methods, inspection rules, packaging and marking of the chemical reagent acetone.

This document applies to the inspection of the chemical reagent acetone.

Note. The chemical reagent acetone has the chemical formula CH_3COCH_3 , a relative molecular mass of 58.08 (according to the 2022 international relative atomic mass), and a CAS number of

67-64-1.

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.

GB/T 601 Preparation of chemical reagent standard titration solution

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 605 General method for colorimetric determination of chemical reagents

GB/T 606 General method for determination of moisture content of chemical reagents. Karl Fischer method

GB/T 611-2021 General method for density determination of chemical reagents

GB/T 6682 Specifications and test methods for water used in analytical laboratories

GB/T 9721-2006 General rules for molecular absorption spectrophotometry of chemical reagents (ultraviolet and visible light parts)

GB/T 9722-2006 General rules for gas chromatography with chemical reagents

GB/T 9736-2008 General method for determination of acidity and alkalinity of chemical reagents

GB/T 9740 General method for determination of chemical reagent evaporation residues

GB 15258 Regulations on Preparing Chemical Safety Labels

GB 15346 Chemical reagent packaging and marking

GB/T 34704-2017 General method for determination of chemical reagent aldehyde

HG/T 3921 Chemical reagent sampling and acceptance rules

3 Terms and definitions

There are no terms or definitions to be defined in this document.

4 traits

Acetone is a colorless and transparent liquid with a special odor, flammable, and miscible with water, alcohol and various organic solvents.