

ICS 71.040.30

CCS G 62



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

GB/T 625-2024

Replacing GB/T 625-2007

Chemical reagent-Sulfuric acid

化学试剂 硫酸

Issued on: September 29, 2024

Implemented on: April 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Foreword
1 Scope
2 Normative references
3 Terms and definitions
4 Properties
5 Technical requirements

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 is required.

This document replaces GB/T 625-2007 "Chemical Reagent Sulfuric Acid". Compared with GB/T 625-2007, except for structural adjustment and editing In addition to the changes in performance, the main technical changes are as follows.

The analytical purity requirement for iron was changed from " $\leq 0.000\ 05\%$ " to " $\leq 0.000\ 04\%$ " (see Chapter 5, 2007). 4 of the 2002 edition);

The analytical purity requirement for arsenic has been changed from " $\leq 0.000\ 003\%$ " to " $\leq 0.000\ 002\%$ " (see Chapter 5, Chapter 4 of the 2007 edition);

The determination methods of color and nitrate have been changed (see 6.3, 6.6, 5.3, 5.6 of the 2007 edition); - Added the determination method of copper and lead by inductively coupled plasma atomic emission spectrometry (see 6.9.1); - The determination methods of anodic stripping voltammetry for copper and lead have been deleted (see 5.9.1 and 5.11.1 of the 2007 edition); - Changed the reference method for arsenic determination (see 6.10, 5.10 of the 2007 edition); - The packaging and labeling have been changed (see Chapter 8, Chapter 7 of the 2007 edition). - Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Petroleum and Chemical Industry Federation.

This document is under the jurisdiction of the Chemical Reagents Subcommittee of the National Technical Committee for Chemical Standardization (SAC/TC 63/SC 3).

This document was drafted by: Suzhou Pengran Technology Co., Ltd., Shandong Jingbo Petrochemical Co., Ltd., Guangdong Hongrui Energy Technology Co., Ltd.

Co., Ltd., Shandong Huifeng Petrochemical Group Co., Ltd., Shandong Product Quality Inspection Institute, Beijing Chemical Reagent Research Institute Co., Ltd.

Hunan Huihong Reagent Co., Ltd., Zhejiang Shangneng Industrial Co., Ltd., Shandong Kenli Petrochemical Group Co., Ltd., Shenzhen Banmingke Technology Co., Ltd.

The main drafters of this document are: Qiu Ailing, Fan Xiaoming, Liu Hui, Zhang Shuping, Ma Qinghua, Li Haitao, Zhang Ai, Tan Shanhe, Zhao Jifei, Wang Yuhua, Han Baoying, Zhu Sihao, Ruan Yuefeng, Zhang Ningbo, Xing Maosen, Liu Hongyan, Zhang Jianping, Zou Huiling, Sun Xueling, Huang Zhiqi.

This document was first issued in 1965, revised for the first time in 1977, revised for the second time in 1989, and revised for the third time in 2007. Fourth revision.

Chemical reagent sulfuric acid **WARNING**. Some of the test procedures specified in this document may result in hazardous situations and it is the user's responsibility to take appropriate safety and health measures.

1 Scope

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

This document applies to the inspection of the chemical reagent sulfuric acid.

Note. The molecular formula of chemical reagent sulfuric acid is H_2SO_4 , the relative molecular mass is 98.07 (according to the 2022 International Relative Atomic Mass), and the CAS number is 7664-93-9.

2 Normative references

GB/T 601

GB/T 602

GB/T 603

GB/T 605

GB/T 610-2008

GB/T 6682

GB/T 9723-2007

GB/T 9739

GB/T 9741-2008

GB 15258

GB 15346

GB/T 23942-2009

3 Terms and definitions

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

4 Properties

Sulfuric acid is a colorless, transparent liquid that is miscible with water or ethanol while releasing a large amount of heat. It quickly absorbs water when exposed to air.

5 Technical requirements

The technical requirements for sulfuric acid are shown in Table 1.