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

**GB/T 1610-2024**

Replacing GB/T 1610-2009

**Chromium trioxide for industrial use**

工业铬酸酐

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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 is required. This document replaces GB/T 1610-2009 "Industrial Chromic Anhydride". Compared with GB/T 1610-2009, except for structural adjustments and editorial changes, In addition to the modifications, the main technical changes are as follows: The requirements for sulfate content, water-insoluble matter and turbidity have been changed (see 5.2,

4.2 of the.2009 edition);

a) The test method for determination of water-insoluble matter content has been changed (see 6.4,

5.6 of the.2009 edition);

b) Added the test method for determining sulfate content by infrared absorption method (see 6.5.4);

c) Added the test method for determining sulfate content by inductively coupled plasma emission spectrometry (see 6.5.5);

d) The test method for determination of sodium content has been changed (see 6.6, 5.7 of the.2009 edition).

e) 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 National Technical Committee on Chemical Standardization (SAC/TC 63). This document was drafted by: Sichuan Mianyang Huayida Chemical Co., Ltd., CNOOC Tianjin Chemical Research and Design Institute Co., Ltd., Hubei Zhenhua Chemical Co., Ltd., Chongqing Minfeng Chemical Co., Ltd., Gansu Jinshi Chemical Co., Ltd., Swiss Metrohm China Ltd. Company, Qingdao Shenghan

Chromatography Technology Co., Ltd. The main drafters of this document are. Bai Litai, Li Xia, Ye Wenjin, Chen Xin, Han Denglun, Liu Binhua, Wang Jing, Fan Xingmu, Liu Yuyu, Zhang Zhongyuan, Xie Youcai, Song Bingxin, Wang Xiaojiao, and Zhang Tianrang. The previous versions of this document and the documents it replaces are as follows: First published as GB 1610-1979 in 1979, first revised in 1989, second revised in 1999, third revised in 2009 revision; This is the fourth revision. - Industrial chromic anhydride Warning. According to the provisions of Chapter 6 of GB 12268-2012, this product belongs to Category 5, Division

## 1 Scope

GB/T 1610-2024 is the Chinese national standard on chromium trioxide for industrial use, 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 29 September 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 April 2025. Classification: ICS 71.060.20, CCS G 13. 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.

This document specifies the requirements, test methods, inspection rules, marking, labeling and accompanying documents, packaging, transportation and Storage. This document applies to industrial chromic anhydride.

Note. This product is mainly used in the electroplating industry, and is also used as an oxidant, catalyst, wood preservative, and for the preparation of chromium trioxide, chromium chloride and other chromium salt products and reagents Raw materials.

## 2 Normative references

The contents of the following documents constitute the 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. in this document.

GB 190 Dangerous Goods Packaging Marking

GB/T 191-2008 Pictorial markings for packaging, storage and transportation

GB/T 325.4 Packaging containers steel drums Part 4..200L and below fully open steel drums

GB/T 6678 General Principles for Sampling of Chemical Products

GB/T 6682-2008 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 12268-2012 List of Dangerous Goods

GB 12463-2009 General technical requirements for dangerous goods transport packaging

GB 15603 General Rules for Storage of Hazardous Chemicals in Warehouses

HG/T 3696.2 Preparation of standard solutions, preparations and products for chemical analysis of inorganic chemical products Part

### 3 Terms and definitions

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

#### 5.1 Oxidizing substances, Category 6, Division

6.1 Toxic substances. Some of the reagents used in this document are corrosive and may cause damage to the skin if splashed on the skin. If it gets on your eyes, rinse with water immediately. If it is serious, seek medical attention immediately. When handling volatile substances or substances with pungent odors, please do so in a well-ventilated environment. The use of this document should be based on practical experience in formal laboratory work. This document does not purport to indicate all possible safety hazards. The user is responsible for taking appropriate safety and health measures and ensuring that the conditions stipulated by relevant national laws and regulations are met.