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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 23850-2024

Sodium perchlorate for industrial use

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Standardization Administration of the PRC

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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 23850-2009 "Industrial Sodium Perchlorate". Compared with GB/T 23850-2009, in addition to the structural adjustment and compilation In addition to logical changes, the main technical changes are as follows: The scope of application has been changed (see Chapter 1, Chapter 1 of the.2009 edition);

a) The product classification has been changed (see Chapter 5, Chapter 4 of the.2009 edition);

b) The classification of the indicators of Type II products in the requirements has been changed, and Type III products have been added (see 6.2,

5.2 of the.2009 edition);

c) The indicators of some items in the requirements have been changed, and the requirements for hypochlorite, pH and looseness have been added (see 6.2,.2009 edition). 5.2);

d) The determination of chloride, chlorate and sulfate content has been added with ion chromatography (see 7.8);

e) Added the determination methods of hypochlorite, pH and bulkiness (see 7.9, 7.12, 7.13);

f) The determination of iron content has been supplemented with spectrophotometry (see 7.11).

g) 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: Yatai Electrochemical Co.,

Ltd., Sichuan Changhua Hongguang Salt Chemical Co., Ltd., Jiangxi Yongning Technology Co., Ltd. Co., Ltd., Lanzhou Taibang Chemical Technology Co., Ltd., Hubei Runfeng Chemical Co., Ltd., Qinghai Junmin Chemical Co., Ltd., Longshan County Huayu Electric Chemical Plant, Guangxi Shangjia Technology Co., Ltd., Sichuan Hope Hydropower Development Co., Ltd., Qingdao Shenghan Chromatography Technology Co., Ltd., Swiss Wan Tong China Co., Ltd., CNOOC Tianjin Chemical Research and Design Institute Co., Ltd. The main drafters of this document are. Wang Shenlin, Zhou Xiangguang, Liu Xueci, Zhao Mingyun, Zhou Qijiang, Gong Jiazheng, Dai Yunquan, Huang Kai, Yang Xiaolei, Zhang Jinmei, Liu Binhua, Lu Siwei, Meng Qingshuo, Shen Jian, Tu Xucheng, Sun Haiqin, Tang Shuguang, Hua Shoubin, He Yong, Tian Haifeng, Song Bingxin, Wang Ying, Gao Weidong. The previous versions of this document and the documents it replaces are as follows: First published in.2009 as GB/T 23850-2009; This is the first revision. - Industrial Sodium Perchlorate Warning - According to the provisions of Chapter 6 of GB 12268-2012, this product belongs to Class 5, Division

5.1 oxidizing substances. Use caution. Personnel using this document should have practical experience in formal laboratory work. This document does not address all possible safety issues. The user is responsible for taking appropriate safety and health measures and ensuring compliance with the conditions stipulated by relevant national laws and regulations.

1 Scope

GB/T 23850-2024 is the Chinese standard for industrial sodium perchlorate. It is a product whose specification is dominated by what it is used for: sodium perchlorate is the intermediate from which ammonium perchlorate, the oxidiser of composite solid rocket propellant, is made, and the impurities that matter are the ones that carry through into that product, the chlorate that has not been fully oxidised, the chloride, the bromate, the sulfate and the heavy metals. The standard sets the requirements, the assay, the moisture, the limits on chlorate, chloride, sulfate and the metallic impurities, the water-insoluble matter, the pH and the granulometry, together with the appearance; then the test methods for each determination, with the titrimetric, gravimetric and instrumental procedures set out in full; then the inspection rules, the sampling and the acceptance; and then the marking, packaging, transport and storage, which for a strong oxidiser carries its own safety requirements. It takes effect on 1 February 2025.

This document specifies the classification, requirements, test methods, inspection rules, marking, labeling, packaging, transportation and storage of industrial sodium perchlorate. This document applies to industrial sodium perchlorate.

Note. This product is mainly used as a raw material for the production of perchloric acid and perchlorate. It can also be used in the gunpowder industry, meteorological rockets, latex explosives, oxidants, safety fire Firewood, civilian ignition coal, etc.

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 190-2009 Dangerous Goods Packaging Marking

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

GB/T 3049-2006 General method for determination of iron content in industrial chemical products 1,10-phenanthroline spectrophotometric method

GB/T 3051-2000 General method for determination of chloride content in inorganic chemical products - Mercury titration method

GB/T 6678 General Principles for Sampling of 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 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

GB/T 23769-2009 General method for determination of pH value in aqueous solutions of inorganic chemical products JJG 119-2018 Laboratory pH (acidity) meter verification procedures

HG/T 3696.1 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.