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

GB/T 537-2009

Replacing GB/T 537-1997

Industrial disodium tetraborate decahydrate

工业十水合四硼酸二钠

(English Translation)

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Foreword

The Standard is a modified Russian Standard GammaOCT8429-1977 "Borax technical conditions" (Russian).

This standard is based on Russian standards GammaOCT8429-1977 "Borax technical conditions" redrafted.

Taking into account China's national conditions, in the use of Russian Standard GammaOCT8429-1977 "Borax technical conditions", we made some changes in this standard.

About the technical differences have been incorporated into the body and they are involved in terms of the margin of a single vertical line identification. In Annex A and Annex Appendix B is given in these technical differences, the list of structural differences and the reasons for the reference.

This standard replaces GB/T 537-1997 "industry disodium tetraborate decahydrate." this standard GB/T 537-1997 and the main technical differences are as follows.

Determination --- of chloride and iron content of the references, the latest version (1997 version 5.6 and 5.7, this version 5.7 and 5.8).

Appendix A of this standard and Appendix B is an informative annex.

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Standardization Technical Committee chemical inorganic chemicals Club (SAC/TC63/SC1) centralized.

This standard was drafted. CNOOC Tianjin Chemical Research Institute, Liaoning Province boron Industry Association, Chemical Industry Group Co., Ltd. Fengcheng, Liaoning wide East Austin Chemical Company, Great Danqiao Xing Peng Fertilizer Limited.

1 Scope

This standard specifies the industry disodium tetraborate decahydrate (borax) requirements, test methods, marking, labeling, packaging, transportation and storage.

This standard applies to industrial disodium tetraborate decahydrate. The products are mainly used in glass, ceramics and enamel industries, preparation of boron-containing compound and Boron fertilizer and other raw materials.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Study whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 191-2008 Packaging - Pictorial signs (ISO 780:1997, MOD) Representation GB/T 1250 limit values and the method of determining General Method GB/T 3049-2006 industrial chemicals determination of iron content 1,10 Philippines spectrophotometry method (ISO 6685. 1982, IDT) GB/T 3051-2000 Inorganic chemical products General method for determination of chloride content of mercury Method (neq ISO 5790. 1979) GB/T 6678 General Principles for Sampling Chemical Products GB/T 6682-2008 analytical laboratory use specifications and test methods (ISO 3696. 1987, MOD) Preparation of standard titration solution of HG/T 3696.1 inorganic chemical products, chemical analysis Preparation of HG/T 3696.2 inorganic chemical products, chemical analysis of impurity standard solution Preparations of HG/T 3696.3 inorganic chemical products, chemical analysis

3 Formula and relative molecular mass

Molecular formula. $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$ Molecular weight. 381.37 (according to 2007 international relative atomic mass)

4 Requirements

4.1

Appearance. small white crystals.

4.2

disodium tetraborate decahydrate industry should meet the requirements of Table 1.

Table 1 Requirements

project

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Premium grade First grade Main content ($\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$) /% ≥ 99.5 95.0 Carbonate (in CO_2 terms) /% ≤ 0.1 0.2 Water insoluble /% ≤ 0.04 0.04 Sulfate (SO_4 meter) /% ≤ 0.1 0.2 Chloride (based on Cl) /% ≤ 0.03 0.05 Iron (Fe) /% ≤ 0.002 0.005