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

GB/T 22651-2008

**Sodium hydroxide for industrial use -- Determination of
mercury content -- Spectrometric method**

工业用氢氧化钠 汞含量的测定 分光光度法

(English Translation)

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Foreword

The Standard and British Standard BS6075-10. 1981 "hydroxide for industrial use sampling and test methods - Part 10 levels of mercury Determination (photometric method) "(in English) the degree of consistency is not equivalent.

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Standardization Technical Committee chlor-alkali Chemical Technical Committee.

This standard was drafted. Jinxi Chemical Industry Research Institute, Xinjiang Zhongtai Chemical Co., Ltd., Qingdao Haijing Chemical Group Co., Ltd.

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Please note that some of the content of this standard may involve patents. The standard release mechanism should not bear the responsibility to identify these patents.

Hydroxide for industrial use Determination of mercury content by spectrophotometry

1 Scope

This standard specifies the method hydroxide for industrial use of mercury content determination.

This standard applies to mercury content greater than or equal to 0.000005% of the sodium hydroxide product.

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 Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 6682 analytical laboratory use specifications and test methods (GB/T 6682-2008, ISO 3696. 1987, MOD)

3 Method summary

In sulfuric acid, potassium permanganate oxidation of mercury in a sample of a divalent mercury ions, reducing excess oxidant with hydroxylamine hydrochloride was added Hydroxylamine hydrochloride and disodium edetate elimination of copper, iron, silver and interference in the range of pH = 0 to 2, with dithizone chloroform solution extraction. At the wavelength of 490nm absorbance was measured.

4 Reagents and materials

The method of the reagents and water, did not indicate when the other requirements, refer to the three water analytical reagent and GB/T 6682 or as specified Equivalent purity.

4.1

nitrate.

4.2

chloroform.

4.3

hydrochloric acid.

4.4

sulfuric acid solution. about 490g/L.

280mL amount of sulfuric acid slowly into about 700mL of water, cooled and diluted to 1000mL.

4.5

sulfuric acid solution. about 100g/L.

Amount of sulfuric acid 60mL, slowly inject approximately 500mL of water, cooled and diluted to 1000mL.

4.6

acetic acid solution. about 360g/L.

Measure 360mL acetic acid (glacial acetic acid), diluted with water to 1000mL.

4.7

disodium edetate solution. 7.45g/L.

Weigh 7.45g disodium edetate, in a beaker, add 200mL water dissolved and transferred to 1000mL volumetric flask, dilute to Scale.

4.8

potassium permanganate solution. 40g/L.

Weigh 40g potassium permanganate, dissolved in water and diluted to 1000mL.

4.9

hydroxylamine hydrochloride solution. 100g/L.

Weigh 10g of hydroxylamine hydrochloride, dissolved in water and diluted to 100mL.

4.10

pairs dithizone chloroform solution. 150mg/L.

Weigh 75mg dithizone, placed in 500mL volumetric flask, dilute to the mark with chloroform. Store in a brown bottle, away from light.