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

GB/T 11212-2026

Replacing GB/T 11212-2013

Sodium hydroxide for chemical fibre use

化纤用氢氧化钠

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 11212-2013 "Sodium Hydroxide for Chemical Fibers". Compared with GB/T 11212-2013, the main differences are in structural adjustments and compilation. Aside from the logical changes, the main technical changes are as follows:

- a) The scope has been changed (see Chapter 1, Chapter 1 of the.2013 edition);
- b) The product technical requirements have been changed (see Chapter 5, Chapter 4 of the.2013 edition);
- c) The sampling method has been changed (see Chapter 6, Chapter 5 in the.2013 edition);
- d) A potentiometric titration method for determining the mass fraction of sodium chloride has been added (see 7.4.1);
- e) An ion chromatography method has been added for determining the mass fraction of sodium chloride and sodium sulfate (see 7.4.3);
- f) The arbitration method for determining the mass fractions of ferric oxide, silicon dioxide, and copper has been modified (see 7.5, 7.7, and 7.9). (2013 editions 6.5, 6.7, and 6.9)

- g) The formula for calculating the mass fraction of calcium by flame atomic absorption spectrometry has been modified (see 7.6.2,.2013 version of 6.6.2);
- h) The factory inspection items have been changed (see 8.1.3, 7.1.1 in the.2013 version);
- i) Added labels (see 9.2);
- j) Added accompanying files (see 9.3);
- k) Packaging requirements have been changed (see 10.1,

5 Technical Requirements

5.1 Appearance. Solid products (including flakes, granules, blocks, etc.) are mainly white and glossy; liquid products are colorless and transparent.

5.2 The technical specifications of sodium hydroxide for chemical fibers shall meet the requirements of Table 1.

6 Sampling

6.1 Products shall be inspected in batches. For continuously and stably produced solid sodium hydroxide for chemical fibers, each batch shall be defined as the production volume per day or per production cycle. Sodium hydroxide liquid products for chemical fibers are sold in batches based on the volume contained in each storage tank or tanker truck, or the production volume per shift. Users purchase batches of the same specification and type each time they receive the product. This batch of sodium hydroxide product for chemical fibers constitutes one batch.

6.2 For liquid sodium hydroxide products used in chemical fibers, representative samples of equal amounts shall be taken from the upper, middle, and lower parts of the storage tank or tank truck, in accordance with the provisions of GB/T 6680. For testing, mix the collected samples thoroughly and place them into two clean, dry, stoppered polyethylene bottles, then seal them. One bottle will be used for testing, and the other will be used for backup. Each sample should be tested, and the volume of each sample should be no less than 500 mL.

6.3 For solid sodium hydroxide products used in chemical fibers, random sampling shall be conducted according to the sampling unit number specified in GB/T 6678. After opening the packaging bag, samples shall be taken according to GB/T 6679. According to regulations, representative samples should be taken promptly, the samples should be mixed, and placed in two clean, dry, stoppered polyethylene bottles and sealed. One sample is for testing, and another is for backup testing. Each sample should contain no less than 500g.

6.4 The sample bottle shall be labeled with the name of the manufacturer, product name,

model, batch number or production date, sampling date and sampler.

7 Test Methods

7.1 Appearance Visually observe under natural light.

7.2 Determination of the mass fraction of sodium hydroxide It shall be conducted in accordance with the provisions of GB/T 4348.1 or GB/T 11213.1, with GB/T 11213.1 being the arbitration law.

7.3 Determination of Sodium Carbonate Mass Fraction It shall be conducted in accordance with the provisions of GB/T 4348.1 or GB/T 7698, with GB/T 7698 being the arbitration law.

7.4 Determination of Sodium Chloride Mass Fraction

7.4.1 Potentiometric titration (arbitration method) Proceed according to Appendix A of GB/T 209-2018.

7.4.2 Spectrophotometry Proceed according to GB/T 11213.2.

7.4.3 Ion Chromatography Proceed as specified in Appendix A.

7.5 Determination of the mass fraction of ferric oxide It shall be conducted in accordance with the provisions of GB/T 4348.3 or HG/T 3942, with HG/T 3942 being the arbitration law. According to HG/T 3942, the ferric oxide content is expressed as the mass fraction w_1 of ferric oxide (Fe_2O_3), expressed as a percentage (%).

7.6 Determination of calcium mass fraction

7.6.1 ICP Law (Arbitration Law) According to HG/T 3942, the calcium content is expressed as the mass fraction of calcium (Ca) w_3 , expressed as % and calculated according to formula (2).

7.6.2 Flame Atomic Absorption Spectrometry

7.6.2.1 When determining the calcium content using the working curve method specified in GB/T 11200.3, the calcium content is expressed as the mass fraction of calcium (Ca) w_5 , expressed as % and calculated according to... Formula (3) is used for calculation.

7.6.2.2 When determined according to the standard addition method specified in GB/T 11200.3, the calcium content is expressed as the mass fraction of calcium (Ca) as % (%). Formula (4) is used for calculation.

7.7 Determination of the mass fraction of silicon dioxide It shall be carried out in accordance with GB/T 11213.4 or HG/T 3942, with HG/T 3942 being the arbitration law. According to HG/T 3942, the silica content is expressed as the mass fraction of silica (SiO_2) w_9 , expressed as % according to formula (5). calculate.

7.8 Determination of Sodium Sulfate Mass Fraction It shall be carried out in accordance with GB/T 11213.5 or Appendix A, with GB/T 11213.5 being the arbitration method.

7.9 Determination of Copper Mass Fraction It shall be carried out in accordance with GB/T 11213.7 or HG/T 3942, with HG/T 3942 being the arbitration law.

8.1 Inspection Classification and Inspection Items

8.1.1 Inspection Classification Inspection is divided into type inspection and factory inspection.

8.1.2 Type Testing Type testing includes all testing items specified in this document. Under normal production conditions, type testing should be conducted at least once a month. Type testing should be performed in any of the following situations.

---Resumption of production after shutdown;

---The production process (such as materials and process conditions) has undergone significant changes;

---After significant fluctuations and adjustments were made to the production facilities.

8.1.3 Factory Inspection The factory inspection items are appearance, sodium hydroxide mass fraction, and sodium chloride mass fraction.

8.2 Judgment Rules Determine according to the "rounding value comparison method" in GB/T 8170.

8.3 Re-inspection Rules If any indicator fails to meet the requirements of this document, the number of representative samples taken from the packaging unit should be doubled for retesting. If any one of the test results fails to meet the requirements of this document, the batch of products is considered unqualified.

9 Marks, labels and accompanying documents

9.1 Marking The outer packaging of sodium hydroxide products for chemical fibers should have a clear and secure marking, including the manufacturer's name, address, and product information. Name, document number, model, batch number or production date, net weight, and the "corrosive substance" mark specified in GB 190. Hydrogen oxygen for chemical fibers. Sodium chloride solid products should also have the "Avoid rain" mark specified in GB/T 191.

9.2 Tags It should comply with the provisions of GB 15258.

9.3 Accompanying Documents Each batch of sodium hydroxide products for chemical fibers shall be inspected by the manufacturer's quality inspection department according to the requirements of this document, and shall be accompanied by