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SN

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

SN/T 0838.4-2015

Replacing SN/T 0838.4-1999

**Determination of manganese in boric acid and borax for import
and export - Flame atomic absorption spectrometry**

进出口硼酸和硼砂中锰含量测定方法 火焰原子吸收分光光度法

(English Translation)

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Foreword

SN/T 0838 is divided into five sections.

--- SN/T 0838.1-2015 import and export of boric acid and borax Determination of chromium content - Flame atomic absorption spectrophotometry;

--- SN/T 0838.2-2015 import and export of boric acid and borax Determination of cobalt content - Flame atomic absorption spectrophotometry;

--- SN/T 0838.3-2015 import and export of boric acid and borax Determination of nickel content - Flame atomic absorption spectrophotometry;

--- SN/T 0838.5-2015 import and export of boric acid and borax copper content determination method of flame atomic absorption spectrophotometry.

This section SN/T Section 40838 of.

This section drafted in accordance with GB/T 1.1-2009 given rules.

The partial replacement of SN/T 0838.4-1999 "export of boric acid and borax Determination of manganese content." This portion of the SN/T 0838.4-Compared to 1999, the main technical changes are as follows.

--- Increased by flame atomic absorption spectrophotometry;

--- Remove the normative references in standards for sampling;

--- Remove the 3.4 "Sampling" section.

This section proposed and managed by the National Certification and Accreditation Administration Committee.

1 Scope

SN/T 0838 provisions of this part of the flame atomic absorption spectrophotometry manganese content of boric acid and borax method.

This section applies to the determination of boric acid and borax import and export of manganese content in the measurement range of 1.00mg/kg ~ 75.00mg/kg.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

Laboratory use specifications and test methods GB/T 6682 Analysis

3 Method summary

The sample was 3% hydrochloric acid dissolved in boiling water bath in hydrochloric acid medium by atomic absorption spectrophotometer at a wavelength of 279.5nm Department to Air - acetylene flame measured absorbance of manganese.

4 Reagents and materials

Unless otherwise indicated, only recognized as a superior grade pure acid or steamed system treated chemical reagents, water GB/T 6682 provisions Two water.

4.1

hydrochloric acid ($\rho = 1.19\text{g/mL}$).

4.2 3% hydrochloric acid solution. Take appropriate amount of hydrochloric acid (4.1) and water volume ratio of three ninety-seven were mixed.

4.3

manganese standard stock solution. concentration of $1000\mu\text{g/mL}$, using commercially available certified manganese standard solution.

4.4

manganese standard working solution. accurate Pipette the appropriate amount of manganese standard stock solution (4.3), (4.2) stepwise diluted with 3% hydrochloric acid solution, and the solution concentration of $10\mu\text{g/mL}$.

5 Apparatus

5.1

Atomic absorption spectrophotometer. with cobalt hollow cathode lamp, working conditions, see Appendix A.

5.2

Analysis of balance. a sense of the amount of 0.1mg.

5.3

flask. 50mL, 100mL.

5.4

tube. 25mL.

Pipette 5.5. 1mL, 5mL, 10mL.

6.1 Blank test

Along with the test sample blank.