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SN

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

SN/T 3093-2012

**Determination of sodium, aluminium, silicon, sulfur, calcium,
vanadium, iron, nickel in residual fuel oil. Wavelength dispersive
X-ray fluorescence spectrometry
(English Translation)**

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Foreword

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

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

This standard was drafted. People's Republic of China Ningbo Exit Inspection and Quarantine.

1 Scope

This standard specifies the residual fuel oil in sodium, aluminum, silicon, sulfur, calcium, vanadium, iron, nickel content - Wavelength dispersive X-ray fluorescence spectrometry method.

This standard applies to water less than 0.5% of residual fuel oil, the measurement range as shown in Table 1.

Table 1 Measuring range

element

Measuring range

mg/kg

Na 12 ~ 100

Al 3 ~ 100

Si 3 ~ 100

S 5000 ~ 40000

Ca 2 ~ 100

V 2 ~ 200

Fe 2 ~ 200

Ni 2 ~ 200

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.

GB/T 6379.1 measurement methods and results of Accuracy (trueness and precision) - Part 1. General principles and definitions GB/T 6379.2 measurement methods and results of Accuracy (trueness and precision) - Part 2. Determine the weight of a standard measurement method Refolding and basic methods of reproduction GB/T 16597 metallurgical product analysis X-ray Fluorescence Spectrometry General

3 Method summary

Measuring the intensity of X-ray fluorescence sample analyte characteristic spectral lines, according to a given X-ray fluorescence intensity and analyte content between Volume relationship, the choice of methods and mathematical regression calibration mode, calculate the amount of analyte.

4 Reagents and materials

4.1

White Oil (light paraffin oil), the elemental sulfur is less than 1mg/kg, less than the other tested elements 0.05mg/kg.