

ICS 77.140.01  
CCS H 40

**SN**

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

**SN/T 0313-2014**

Replacing SN/T 0313-1994

---

**Determination of molybdenum in steel for import and export.  
8-hydroxyquinoline gravimetric after separation with  
thioacetamide**

**(English Translation)**

**Issued on: January 1, 1970**

**Implemented on: January 1, 1970**

---

**Issued by: General Administration of Customs**

## Table of Contents

Foreword

1 Scope

2 Normative references

4 Reagents

### Foreword

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

Instead of the standard SN/T 0313-1994 "Methods for chemical analysis of import and export of steel thioacetamide separate 8-hydroxy quinoline measured gravimetric method Fixed molybdenum ", compared with the SN/T 0313-1994, in addition to editorial changes, the major technical changes are as follows.

--- The title changed to "import and export of steel Molybdenum Determination thioacetamide separate 8-hydroxy quinoline gravimetric method", the corresponding English the title modified;

--- Added "Normative references 2, 5 instruments, sample preparation 6" subsequent sections renumbered accordingly adjusted;

--- The "reagent 3" to "4 reagent" normative content adjustment, and increased reagent preparation methods section, followed by series Numbers were adjusted accordingly;

--- The "3.11 ammonia (rho1.15g/mL)" to "4.6 ammonia water (rho = 0.91g/mL)";

--- The "3.13 edetate disodium (EDTA) solution (1%)" to "4.19 ethylene diamine tetra-acetic acid (EDTA) solution";

--- The "4.4.1 A sample (4.1) into a beaker of 100mL" to "7.2.1 sample (7.1) into 250mL beaker";

--- The "4.4.4 solution of ammonia (3.12)" with "7.2.4 solution of ammonia (4.6)";

--- "5 Calculation results of the analysis" section of the specification adjustment.

This standard by the National Certification and Accreditation Administration Committee.

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

## 1 Scope

This standard specifies the test methods in the import and export of steel molybdenum content.

This standard applies to the import and export of steel heat-resistant steel, stainless steel, molybdenum high-speed tool steel to the determination, measurement range. 2.00% 8.00%.

## 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 6682-2008 analytical laboratory use specifications and test methods GB/T 20066 Steel and iron - Sampling and determination of the chemical composition of the sample with a sample preparation method Principle 3 Sample was dissolved in aqua regia, dropping a small amount of hydrofluoric acid, perchloric acid heightening smoke, tartaric acid as a complexing agent, with ammonia dissolved molybdic acid, tungstic acid, in 0.5mol/L sulfuric acid medium with thioacetamide precipitate molybdenum sulfide and molybdenum separation and impurity elements, with sulfuric acid and nitric acid to dissolve molybdenum sulfide, in the presence of EDTA, control acidity pH3.5 ~ 4.0, with 8-hydroxy quinoline molybdenum precipitation, the precipitate was dried to constant weight to give the percentage of molybdenum CONTENT.

Test solution in tungsten content 45mg, titanium content 15mg, vanadium 15mg, niobium 10mg, 10mg or less copper content does not interfere with the determination.

## 4 Reagents

Unless otherwise indicated, the reagents used were of analytical grade, water GB/T 6682-2008 in tertiary water.

### 4.1

disodium edetate.

### 4.2

thioacetamide.

### 4.3

ammonium acetate.

4.4 8-hydroxyquinoline.

**4.5**

tartaric acid.

Aqueous ammonia 4.6 ( $\rho = 0.91\text{g/mL}$ ).

**4.7**

Glacial acetic acid ( $\rho = 1.05\text{g/mL}$ ).

**4.8**

Hydrofluoric acid ( $\rho = 1.15\text{g/mL}$ ).

**4.9**

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

**4.10**

Nitrate ( $\rho = 1.42\text{g/mL}$ ).

**4.11**

sulfate ( $\rho = 1.84\text{g/mL}$ ).

**4.12**

perchloric acid ( $\rho = 1.67\text{g/mL}$ ).

**4.13**

hydrochloric acid (11). Measure 50mL of hydrochloric acid (4.9), was mixed with 50mL water.