

ICS 71.060.50

CCS H 21

YS

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

YS/T 535.5-2009

Replacing YS/T 535.5-2006

**Chemical analysis methods of sodium fluoride. Part 5:
Determination of soluble sulphates content. Turbidimetric
method**

氟化钠化学分析方法 第5部分：可溶性硫酸盐含量的测定浊度法

(English Translation)

Issued on: December 4, 2009

Implemented on: June 1, 2010

Issued by: Ministry of Industry and Information Technology

Table of Contents

Foreword
1 Scope
2 Normative references
3 Method summary
4 Reagents
4.5 Barium chloride hydrochloric acid solution (240g/L)
4.6 Sulfate standard solution
5 Instruments and equipment
6 Sample
7 Procedure
7.1 Sample

Foreword

YS/T 535 "chemical analysis of sodium fluoride" is divided into 10 parts.

- Part 1. Determination of the weight of water in the wet method;
- Part 2. Determination of distillation of fluorine content - thorium nitrate titration volumetric method;
- Part 3. Determination of silicon content - Molybdenum blue spectrophotometric method;
- Part 4. Determination of iron content phenanthroline spectrophotometry;
- Part 5. Determination of soluble sulfate turbidity method;
- Part 6. Determination of carbonate content - Gravimetric method;
- Part 7. Determination of acidity and law;
- Part 8. Water-insoluble content - Gravimetric method;
- Part 9. Determination of chlorine turbidity method;
- Part 10. Preparation and storage of test samples.

This is Part 5.

The partial replacement of YS/T 535.5-2006 (formerly GB/T 8158.5-1987).

This part is the "determination of sodium sulfate content of soluble chemical analysis of

turbidity Law" YS/T 535.5-1994 revision, and YS/T 535.5-1994 increased compared to the like precision and quality assurance and control content.

The non-ferrous metal part by the National Standardization Technical Committee and centralized.

This part of the Fushun Aluminum Co., Ltd., China Nonferrous Metals Industry Institute of Standards Metrology and Quality is responsible for drafting.

This part of the Fushun Aluminum Co. drafted.

1 Scope

This section provides the determination of soluble sodium sulfate content.

This section applies to the determination of soluble sodium sulfate content. Measurement range (mass fraction). 0.05% to 0.20%.

2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this section, however, encourage the parties to this part of the research agreement Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

YS/T 535.10-2009 Methods for chemical analysis of sodium fluoride - Part 10. Sample preparation and storage

3 Method summary

Sample in hydrochloric acid solution was evaporated to near dryness, and the residue was dissolved in hydrochloric acid, and the turbidity under certain conditions, by the barium sulfate precipitate produced, Measured.

4 Reagents

4.1

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

4.2

hydrochloric acid solution (1mol/L).

4.3

dihydrate barium chloride ($\text{BaCl}_2 \cdot 2\text{H}_2\text{O}$). particle size 0.5mm ~ 1.25mm (screening). Throughout the measurement and calibration process, you must with the same size of

barium chloride.

4.4

glycerol.

4.5 Barium chloride hydrochloric acid solution (240g/L)

120g of barium chloride to 450mL with water, dissolved and transferred to 500mL volumetric flask, was added 10mL of hydrochloric acid (4.1). Diluted with water to the mark Degree, and mix.

4.6 Sulfate standard solution

Pipette 41.60mL sulfate standard solution (0.1mol/L) in a volumetric flask, dilute to volume, and mix. This standard solution containing 1mL 200mg sulfate.

5 Instruments and equipment

5.1

platinum dish.

5.2

Spectrophotometer.

6 Sample

The specimen shall conform YS/T 535.10-2009 4.2 requirements.