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

GB/T 27674-2011

**Copper, lead and zinc sulfide concentrates -- Determination of
hygroscopic moisture in the analysis sample -- Gravimetric
method**

硫化铜、铅和锌精矿 试样中湿存水分的测定 重量法

(English Translation)

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Table of Contents

Foreword
1 Scope
2 Method summary
3 Reagents
4 Instrument
5 Sampling methods and sample
5.1 Sample
5.2 Sample preparation

Foreword

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

This standard is identical with ISO 9599:1991 (E) "sulfide copper, lead and zinc concentrate sample hygroscopic moisture Gravimetric method." this standard and ISO 9599. compared to 1991 (E), mainly to do the following editorial changes.

- With a decimal point instead of a comma as the decimal point in the international standard " , " . " , " ;
- Use the "standard" instead of "this International Standard";
- According to Chinese customary change the standard name;
- Remove the cover of the international standards, directory, foreword and introduction.

This standard by the national non-ferrous metals Standardization Technical Committee (SAC/TC243) centralized.

This standard is mainly drafted by. Daye Nonferrous Metals Co., Ltd., China Nonferrous Metals Industry Standard Quality Measurement Institute.

1 Scope

This standard specifies the method for the determination of the weight of the copper sulfide, lead and zinc concentrates hygroscopic moisture.

This standard applies to copper sulfide does not contain volatile organic flotation agents (such as kerosene), the determination of lead and zinc concentrate sample moisture measurement in the range of 0.05% to 2% (mass fraction), the results for the analysis of

sample components hygroscopic correction.

Note: Determination of moisture content using the results of this standard does not concentrate as part of sample analysis results. When the need to determine the moisture content of the concentrate of commercial transport, the Senate According to ISO 10251 method. Water and hygroscopic moisture determination is closely related to the other, in order to ensure proper calibration metal content, the two methods the sample is required to achieve the same level of dryness.

This standard does not easily oxidized sulfide concentrate (see Note 6.3), easily oxidized sulfide ore deposit wet moisture determination, see Appendix A.

2 Method summary

Dried in an oven sample temperature control at $105\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$, and hygroscopic moisture content by mass loss calculation.

3 Reagents

3.1

desiccant. silica gel or anhydrous magnesium perchlorate.

Warning. Dispose of magnesium perchlorate, be careful, you must use the water into the tank.

4 Instrument

In addition to general laboratory equipment, but also includes.

4.1

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

4.2

Oven. Can temperature at $105\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$.

4.3

The dish. made of glass or silicon or other corrosion-resistant metal, having a diameter of about 50mm fastening closures.

4.4

flat chassis or tray.

5.1 Sample

A sample size of less than 150 μ m.

5.2 Sample preparation

Prepare enough for chemical analysis of samples and hygroscopic moisture determination. The sample is placed flat chassis or shallow dish (4.4), and spread evenly thickness About 3mm ~ 5mm. Cover, to prevent dust from falling, but allows air flow over the sample. In a laboratory environment, the sample is placed 2h Above, and to ensure the quality of the sample changes in 2h intervals of not more than 0.1%.