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

GB/T 32551-2016

**Fluorspar powder in bulk - Determination of the transportable
moisture limit - Flow table method**

散装萤石粉 适运水分限量的测定 流盘实验法

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Quarantine;
Standardization Administration of the PRC**

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009. This standard is proposed by China Iron and Steel Industry Association. This standard is under the jurisdiction of the National Steel Standardization Technical Committee (SAC/TC183). The drafting of this standard. Shanghai Entry-Exit Inspection and Quarantine Bureau of industrial and raw materials testing technology center, metallurgical industry information standards Hospital, Shandong Entry - Exit Inspection and Quarantine Bureau Inspection and Quarantine Technology Center. The main drafters of this standard. Zhu Zhixiu, Jiang Li, Li Chen, Guo Bing, Han Jian, Chen Hehai, Lu Chunsheng, Liu Shu. Determination of moisture content of bulk fluorite powder Flow plate experiment WARNING - Personnel using this standard should have practical experience in formal laboratory work. This standard does not indicate all possible security questions question. It is the responsibility of the user to take appropriate safety and health measures and to ensure compliance with the conditions set forth in the relevant national regulations.

1 Scope

China's national method for determining the transportable moisture limit of bulk fluorspar powder by the flow table test. It specifies that determination and applies to bulk fluorspar powder of maximum particle size 1 mm in which particles finer than 150 micrometres make up 80 per cent or more by mass. The quantity it measures decides whether a cargo can safely be loaded onto a ship, and the reason it exists is one of the oldest killers in bulk shipping. A fine powder containing water behaves as a solid while it is at rest. Put it in a ship's hold and subject it to the vibration of the engines and the working of the hull in a seaway, and the particles can settle and compact, forcing the water into the space between them until the water rather than the grain contact carries the load. At that point the cargo liquefies: it stops behaving as a solid and starts behaving as a heavy fluid. A fluid cargo shifts to one side when the ship rolls and does not come back, the ship takes a list, the shift continues, and vessels lost this way have gone over in minutes with all hands. The transportable moisture limit is the moisture content below which a particular cargo will not do this, and it is determined here by the flow table: a sample is compacted in a mould on a table that is dropped repeatedly, and the moisture at which the cone of material begins to

flow rather than to crumble defines the flow moisture point, from which the limit is derived. The standard carries an explicit warning that its users must have practical laboratory experience. Issued on 24 February 2016 and in force since 1 January 2017.

This standard specifies the method for the determination of the moisture content of bulk fluorite powder. This standard applies to the maximum particle size of 1mm bulk fluorite powder in the determination of moisture content limit, which is less than 150µm particle size. The particle composition is 80% (mass fraction) or more.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article. For undated references, the latest edition (including all modifications) applies to this document. Standard Practice for Sampling and Sampling Fluorite in Bulk

GB/T 22563 Determination of fluorite in fluorite

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Bulk fluorite powder By the fine powder, small particles (maximum particle size of 1mm) composition, the main component of calcium fluoride (CaF₂), no packaging, directly into the ship's goods Place without any intermediate enclosure.

3.2 Fluidized There is a certain proportion of fine particles and a certain amount of moisture in the bulk fluorite powder, in the vibration, impact or ship movement and other major external forces under the influence of loss Internal shear strength of the phenomenon. In the experiment, the samples were produced by the external force vibration, the sample water content and the dense state of the sample Changes in the saturation of the plastic deformation occurs.

3.3 Flow water points The sample produces a flow state, ie, the mass fraction (%) of the moisture content when fluidization occurs.

3.4 Proper transport of water Use of non-special provisions of the ship transport, bulk cargo can be safely transported the highest water content, also known as the transport water limit.