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

GB/T 1599-2014

Replacing GB/T 1599-2002

Antimony ingot

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Foreword

This Standard is drafted in accordance with the rules given in GB/T 1.1-2009. This Standard replaces GB/T 1799-2002 "Antimony ingot". Compared with GB/T 1599- 2002, the main changes are as follows: -- This Standard adds designation Sb99.70. -- This Standard cancels designation Sb99.85. For chemical composition of antimony ingot, ADD requirements for two impurities of bismuth and cadmium. For chemical composition of the antimony ingot, increase the requirements for impurities such as selenium and lead. This Standard shall be under the jurisdiction of the National Technical Committee of Non-Ferrous Metal (SAC/TC 243). The drafting organizations of this standard. Hsikwang Shan Twinkling Star Co., Ltd. AND Hunan Chenzhou Mining Co., Ltd. Main drafters of this Standard. Li Zhiqiang, Liu Xinchun, Song Yingqiu, Dai Yongjun, Wu Shaobo, Liao Guangrong, Zeng Qingbin, Deng Weihua, Yang Zhou, Liu Fangyun, Wang Weiguo, Ouyang Jingquan, Gong Fubao and Zhao Bo. This Part replaces the following previous standards. -- GB/T 1599-1979, GB/T 1599-2002. Antimony ingot

1 Scope

GB/T 1599-2014 is the Chinese national standard on antimony ingot, in the field of metallurgy. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 5 December 2014 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 August 2015. Classification: ICS 77.150.30, CCS H62. This page is published from the official record of the standard held by the Chinese standards administration: the

identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This Standard specifies the antimony ingot's requirements, test methods, inspection rules and marks, packaging, transportation, storage, quality certificates and contracts (or purchasing orders). This Standard is applicable to the antimony ingot which is produced by the raw materials such as antimony concentrate and lead-antimony concentrate. The antimony-bead standard which is produced by the raw materials such as antimony concentrate and lead- antimony concentrate can also be implemented with reference to this Standard.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this Standard.

GB/T 8170 Numerical Modification Rules

GB/T 3253 (all parts) Methods for chemical analysis of antimony and antimony trioxide

3 Requirements

3.1 Product classification The antimony ingot is divided into four designations -- Sb99.90, Sb99.70, Sb

99.50 according to the chemical composition.

3.2 The chemical composition of antimony ingot shall comply with the provisions in Table 1. to the supplier within 60 days from the date of the receipt of the product; it shall be settled by negotiation between the supplier and the demander. If the arbitration is required, the arbitration sampling shall be carried out jointly by the supplier and the demander at the demander's place.

5.2 Group-batch Antimony ingot shall be submitted in batches for inspection. Each batch shall be composed of the products of the same designation; the weight of each batch shall not exceed 100t.

5.3 Inspection items It shall perform the inspections of chemical composition, surface mass and weight for each batch of the antimony ingot.

5.4 Sampling and sample preparation

5.4.1 Sampling The sampling of antimony ingot shall be performed in the same batch of the

products whose appearance inspection is qualified; sample the one which is not less than 5% of the total antimony ingot as the sampled antimony ingot. Then use drill of which the bit's specification is $\phi 8\text{mm} \sim \phi 12\text{mm}$ to perform alternate drilling (if drilling the top surface of the first one, then it shall drill the bottom surface of the second one) on the top surface or the bottom surface of the sampled antimony ingots in turn; the drilling position is at the three equidistance-points on any diagonal line. The drilling depth shall not be less than half the thickness of the antimony ingot. The collected drilling cuttings shall be the sample. The lubricating agent shall not be used during the time of the drilling, and it shall choose the appropriate rotating speed and the feeding rate (It is preferable to prevent the oxidation phenomenon due to the excessive heating).

5.4.2 Sample preparation Crush the sample to the particle size of not more than 5mm; mix it uniformly; divide it to 500g-1000g by quartile method; remove the iron filings with the magnet. Then divide it into four equal parts; use one of them in the inspection; hand over one or two of them to demander (if required by the demander); the other one shall be retained by the supplier for future reference. Before the analysis and testing, samples shall be milled to the particle size of no greater than 0.125mm by mortar. The sample shall be retained for twelve months.

5.5 Determination of the test results

5.5.1 When the analysis result of the chemical composition does not comply with the provisions in this Standard, it shall be determined as the unqualified batch.