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

GB/T 8185-2020

Palladium(II) chloride

二氯化钯

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 8185-2004 "Palladium Chloride". Compared with GB/T 8185-2004, the main technical changes except for editorial changes are as follows:

- Amend the scope of application of this standard to "Palladium dichloride for chemical, petrochemical, electroplating, pharmaceutical, fine chemical and other industries" (see Chapter 1, Chapter 1 of the.2004 edition);
- Added the chemical formula of palladium dichloride (see 3.1);
- The original "Palladium dichloride purity is divided into two specifications. chemical purity and analytical purity" is revised to "The mass fraction of palladium dichloride and palladium is not less than 59.5%" (see 3.2, 3.2 of the.2004 edition);
- Increase the limit of the seven elements of harmful impurities Al, Cu, Cd, Cr, Mg, Si, Zn, and reduce the harmfulness stipulated in the original standard Maximum limit of impurity elements (see Table 1, Table 1 of the.2004 edition);
- The method for determining the mass fraction of palladium in palladium dichloride "according to the provisions of GB/T 15072.4" is revised to "according to GB/T 23276 "(See 4.1, 4.1 of the.2004 edition);
- Modify the method for determining the content of impurity elements in palladium dichloride from emission spectrometry to inductively coupled plasma atomic emission Spectroscopy (see 4.2, 4.2 in.2004 edition);
- Revised the sampling regulations (see 5.4, 5.4 of the.2004 edition);
- Added the provisions for rounding and judging the value of the test results (see 5.5.1).

This standard was proposed by China Nonferrous Metals Industry Association. This standard is under the jurisdiction of the National Nonferrous Metals Standardization Technical Committee (SAC/TC243). Drafting organizations of this standard. Guiyan Platinum Industry Co., Ltd., Non-ferrous Metals Technology and Economic Research Institute Co., Ltd., Shaanxi Ruike New Materials Materials Co., Ltd., Jiangxi Junxin Precious Metal Technology Materials Co., Ltd., Chengdu Guangming Paite Precious Metal Co., Ltd., Xi'an Kaili New Materials Material Co., Ltd. The main drafters of this standard. Liu Jun, Liu Chaoneng, Ma Zhibin, Wang Shuying, Zhou Shuyan, Zhang Baoming, Zhang Shengming, Fu Shimei, Han Yuan, Xiao Yun, Shen Shanwen, Feng Lu, He Donghao, Su Linlin, Li Yongqiang, Zhang Sirui, Shi Yingben, Xu Zeliang, Shi Xiaoni, Wen Yongzhong, Zhang Lei. The previous versions of the standard replaced by this standard are as follows:

---GB/T 8185-1987, GB/T 8185-2004. Palladium dichloride

1 Scope

China's national standard for palladium dichloride. Palladium chloride is the soluble form in which palladium is handled, and it is the starting point for almost everything palladium is used for: it is the precursor from which catalysts are prepared, the source of the metal in electroplating baths and electroless plating, and a reagent in its own right in fine chemical synthesis - the Wacker process that makes acetaldehyde from ethylene runs on it, and the palladium-catalysed coupling reactions that transformed pharmaceutical synthesis begin with it. Because palladium is a precious metal costing more than gold at times, the specification is dominated by assay: the customer is buying palladium content, and a tenth of a per cent is money. The other requirements concern the impurities that poison catalysts - iron, copper, lead and the other platinum group metals - at levels well below what would matter in an ordinary chemical. The standard specifies the technical requirements, test methods, inspection rules, marking, packaging, transport, storage, quality certificates and order contents, for use in chemical, petrochemical, electroplating, pharmaceutical and fine chemical industries.

This standard specifies the technical requirements, test methods, inspection rules and markings, packaging, transportation, storage, quality certificates and orders for palladium dichloride. The content of the manifest (or contract). This standard applies to palladium dichloride used in the chemical, petrochemical, electroplating, pharmaceutical, and fine chemical industries.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this document. For undated references, the latest version (including all amendments) applies to this document.

GB/T 8170 Numerical rounding rules and the expression and determination of limit values

GB/T 23276 Methods for analysis of palladium compounds-Determination of palladium content-Dimethylglyoxime precipitation EDTA complexometric titration method YS/T 1197

Methods for chemical analysis of palladium compounds gold, silver, platinum, rhodium, iridium, ruthenium, lead, nickel, copper, iron, tin, chromium, zinc, magnesium, manganese, aluminum, Determination of calcium, sodium, silicon, bismuth, potassium, cadmium.

Inductively coupled plasma atomic emission spectrometry

3 Technical requirements

3.1 Chemical formula of palladium dichloride PdCl_2 .

3.2 Chemical composition The chemical composition of palladium dichloride should meet the requirements of Table 1.

3.3 Appearance The product is brown powder.

3.4 Dissolution test The product should be dissolved in hydrochloric acid (1:3), and the solution should be clear and translucent, with no visible insoluble matter.