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

GB/T 1631-2008

Replacing GB/T 1631-1979

**Designation system and basis for specifications of ion
exchange resins**

离子交换树脂命名系统和基本规范

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Quarantine;
Standardization Administration of the PRC**

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Foreword

This standard replaces GB/T 1631-1979 "ion exchange resins classification, nomenclature and models." This standard compared with GB/T 1631-1979, the main changes are as follows:

--- Named formal reference to the principles of ISO of the product named. The standard proposed by China Petroleum and Chemical Industry Association. This standard by the National Standardization Technical Committee plastic universal methods and products Club (SAC/TC15/SC4) centralized. This standard is mainly drafted by: Su Qing Water Treatment Engineering Group Corporation, Xi'an Thermal Power Research Institute, the National synthetic resinous Inspection Center, winning glory Zhejiang Industrial Co., Ltd., Zibo Chemical Co., Ltd. East The main drafters of this standard. Jiang Huiping, Qian Ping, Wang Guang Zhu, Wang Jiandong, Shen Jianhua, Di Jinghua. This standard replaces the standards previously issued as follows:

--- GB/T 1631-1979. Ion exchange resin naming system and basis for specifications

1 Scope

China's national designation system for ion exchange resins - the code by which a resin is named, and the set of properties on which any resin specification must be written. It specifies the naming system and the basis for specifications of ion exchange resins. An ion exchange resin is a polymer bead that swaps its own mobile ions for ions in the water passing through it, and it is the working material of every demineralisation plant, every boiler water treatment train, every softener and a great deal of hydrometallurgy and pharmaceutical purification. Resins that look identical differ in ways that decide whether a plant works: the functional group and therefore whether the resin is strongly or weakly acidic or basic, the matrix polymer, whether the structure is gel or macroporous, the degree of crosslinking, the ionic form in which it is supplied, the particle size distribution, the

exchange capacity, the moisture content and the thermal and chemical limits. A user replacing a bed cannot try the resin first; the bed is charged and the plant is run. So the name has to carry the essential distinctions and the specification has to cover the same properties from one supplier to the next. The 2008 edition brought the naming formally into line with the ISO principles for naming these products, replacing the classification-nomenclature-and-model scheme of the 1979 edition it supersedes. Issued on 30 June 2008 and in force since 1 February 2009.

This standard specifies the method of ion exchange resins classification, nomenclature and models. This standard applies to the ion exchange resin category, name and model number.

2 Name and specifications

Ion exchange resins are named according to the following specifications and standard mode, see Table 1. Table 1 ion exchange resin and a naming model specifications name Logo block National standard base name Single group Character Group Character Group Character Group Character Group Character Group The countries named by the standard number, name and basic individual sets. Basic Name. ion exchange resins, where the classification is acidic should base Before the name plus "Yang" word; is classified as basic, in front of the base name plus "Yin" word. To name a clear, single group was divided into the following letter contains Interest groups of six characters.

1 Character Group. Ion-exchange resins, gel-type sub-patterns and macroporous two kinds. Where the said macroporous resin having physical pore structure, Before the full name plus "D" to show the difference.

--- Character Group 2. representative of the product breakdown of functional groups, functional groups and classification codes are shown in Table 2. Classification Table 2 character group 2 product functional groups used in the code Numerals Category Name The name of the functional group 0 acid sulfonic acid group A weakly acidic carboxylic acid group and a phosphoric group 2 strong base quaternary amine, etc. 3 weak base of primary, secondary, tertiary amine groups, etc.

4 amine acid chelating group and the like

5 Gender strong base - weak acid weak base - weak acid 6 hydroquinone redox thiol group, etc.

--- Character Group 3. skeleton figures represent the classification, classification code and skeleton are shown in Table 3.