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**CHEMICAL INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

HG/T 2765.4-2005

**Blue gel indicator, color changing silica gel and non-cobalt
color changing silica gel**

蓝胶指示剂、变色硅胶和无钴变色硅胶

(English Translation)

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Foreword

This standard corresponds to the Russian National Standard TOCT 8984-75 (91) "Silica gel indicator" (Russian version). The degree of consistency between this standard and TOCT 8984-75 (91) is non-equivalent. The main differences are as follows:

- This standard specifies three varieties of blue gel indicator, color changing silica gel, non-cobalt color changing silica gel. TOCT 8984-75 (91) does not include color changing silica gel and non-cobalt color changing silica gel.
- ADD the indicators of abrasion rate and 120 °C loss on ignition; the purpose is to ensure the service life of the product and the interests of users.

This standard replaces HG/T 2765.4-1996 "Silica gel - Blue gel indicator color changing silica gel".

Compared with HG/T 2765.4-1996, the main changes of this standard are as follows:

- ADD the variety of non-cobalt color changing silica gel (3.2 of this edition).
- CHANGE the batch size of products into no more than 5 tons (4.1 of the

1996 edition; 5.2 of this edition).

- ADJUST the packaging specifications (6.3 of the 1996 edition; 7.1 of this edition).

HG/T 2765 is divided into several independent parts as follows:

HG/T 2765.1 Silica gel type A (Narrow pore silica gel)

HG/T 2765.2 Silica gel type C (Wide pore silica gel)

HG/T 2765.3 Micro-bead silica gel

HG/T 2765.4 Blue gel indicator color changing silica gel and non-cobalt color changing silica gel

HG/T 2765.5 Test method for silica gel

HG/T 2765.6 Silica gel type B

Appendix A of this standard is an informative appendix.

This standard was proposed by the China Petroleum and Chemical Industry Association.

Blue gel indicator, color changing silica gel and non-cobalt color changing silica gel

1 Scope

This standard specifies the requirements, test methods, inspection rules, markings, labels, packaging, transportation, storage of blue gel indicator, color changing silica gel, non-cobalt color changing silica gel.

This standard applies to blue gel indicator, color changing silica gel, non-cobalt color changing silica gel, which is prepared, using the silica gel as the raw materials, through impregnation with cobalt chloride. Blue gel indicator is mainly used to indicate the degree of saturation of desiccant, the relative humidity of the sealed package and the space medium in precision instruments. The color changing silica gel is mainly used as a desiccant and indicator, which is used to prevent moisture in general sealed packages and instruments. Non-cobalt color changing silica gel can usually be used as a substitute for blue gel

indicator and color changing silica gel.

2 Normative references

The provisions in following documents become the provisions of this Standard through reference in this Standard. For the dated references, the subsequent amendments (excluding corrections) or revisions do not apply to this Standard; however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB/T 191-2000 Packaging - Pictorial marking for handling of goods (eqv ISO 780:1997)

GB/T 1250 Rules for expression and judgement of limiting values

GB/T 6678 General principles for sampling chemical products

HG/T 2765.5-2005 Test method for silica gel

3.1 Appearance: The color represented by the corresponding variety.

silica gel.

5.1 All indicator items, which are specified in the requirements, are exit-factory inspection items, which shall be inspected batch by batch.

5.2 The products of the same grades, which are produced continuously OR by the same shift, by the manufacturer, using the same materials, under the basically same production conditions, form a batch. Each batch of products does not exceed 5 t.

5.3 Determine the number of sampling units, according to GB/T 6678. When sampling, use a sampler to take sample from 3/4 of the depth of the material layer. Mix the collected samples uniformly. Reduce them, by quartering method, to about 500 g. Divide them into two clean, dry jars. Seal them. Paste labels on the bottles, which indicate the manufacturer name, product name, category, grade, batch number and sampling date, name of the sampler. One bottle is

used for inspection; the other bottle is kept for a certain period of time, according to the needs of the manufacturer, for reference.

5.4 Blue gel indicator, color changing silica gel, non-cobalt color changing silica

gel shall be inspected by the quality supervision and inspection department of the manufacturer, in accordance with the provisions of this standard. The manufacturer shall ensure that each batch of exit-factory products meets the requirements of this standard.

5.5 If one of the indicators, in the inspection results, does not meet the

requirements of this standard, it shall take sample again, from double quantity of packaging bags, for reinspection. Even if only one indicator does not meet the requirements of this standard, the entire batch of products is unqualified.

5.6 Use the rounding value comparison method, which is specified in GB/T

1250, to determine whether the inspection result meets the standard.

6.1 For the blue gel indicator, color changing silica gel, non-cobalt color

changing silica gel, the packaging bags must have firm and clear marks, which indicate the manufacturer name, factory address, product name, trademark, category, grade, net content, batch number or production date, this standard number, as well as the mark 1 "Fragile items" and "Avoid rain", as specified GB 191.

6.2 For each batch of exit-factory blue gel indicator, color changing silica gel,

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