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

GB 24410-2009

**Indoor decorating and refurbishing materials -- Limit of harmful
substances of water based woodenware coatings**
(English Translation)

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Foreword

All technical contents of this standard are compulsory.

Appendix A of this standard is normative.

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

This standard shall be under the jurisdiction of the National Technical Committee on Paints & Pigments of Standardization Administration of China.

Drafting organizations of this standard. Changzhou Paint and Coatings Industry Research Institute, Guangdong Huarun Paints Co., Ltd., ICI Swire Paints (China) Ltd., Guangdong Carpoly Chemical Co., Ltd., Nippon Paint (Guangzhou) Co., Ltd., Bayer Material Science Trading (Shanghai) Co., Ltd., BASF (China) Co., Ltd., Jiangsu Elephant East Asia Paint Co., Ltd., Sopel Chemical (Shanghai) Co., Ltd., Skshu Paint Co., Ltd., Nanjing Tianxiang coating Co. Ltd., Shanghai Zhongnan Building Material Company, China Paint (Shenzhen) Co., Ltd., Goldenfish Group Shijiangzhuang Paint Company, Hengchang Petrochemical Industry Co., Ltd., Nankang Austre Paint Co., Ltd., Kunshan Sunmun Science & Technology Development Co., Ltd. and Guangdong Hualong Knitting Co., Ltd.

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Indoor Decorating and Refurbishing Materials -

Limit of Harmful Substances of Water based Woodenware

Coatings

1 Scope

This standard specifies the requirements, test methods, inspection rules, packaging mark, coating safety and protection for the permissible limits of such substances harmful to human body and environment in the water based woodenware coatings for indoor decorating and refurbishing and water based putty for the woodenware.

This standard is applicable to water based woodenware coatings for indoor decorating and refurbishing and industrial coating, and water based putty for the woodenware.

2 Normative References

The following standards contain the provisions which, through reference in this standard, constitute the provisions of this standard. For dated reference, the subsequent amendments (excluding corrigendum) or revisions of these publications do not apply. However, all parties who enter into an agreement according to this standard are encouraged to study whether the latest editions of these documents apply. For undated references, the latest edition of the normative document referred to applies.

GB/T 1250 Rules for Expression and Judgment of Limiting Values

GB/T 3186 Paints, Varnishes and Raw Materials for Paints and Varnishes - Sampling (GB/T 3186-2006, ISO 15528.2000, IDT)

GB/T 6750 Paints and Varnishes - Determination of Density - Pycnometer Method (GB/T 6750-2007, ISO 2811-1.1997, IDT)

3 Terms and Definitions

For the purpose of this standard, the following terms and definitions apply.

3.1

Volatile organic compounds (VOC)

All organic compounds whose the initial boiling point is less than or equal to 250°C under 101.3kPa standard atmosphere pressure.

4 Requirements

Limit of harmful substances in the product shall meet those specified in Table 1.

5.1 Sampling

The product shall be sampled according to those specified in GB/T 3186.

5.2.1 Volatile organic compounds content is tested according to those specified in

Appendix A of this standard. Test results of coating product are calculated according to those specified in Article A.7.2 of Appendix A; those of putty product are calculated according to those specified in Article A.7.1 of Appendix A.

5.2.3 Content of glycol ether and its esters (ethylene glycol monomethyl ether, ethylene glycol monomethyl ether acetate, ethylene glycol ethyl ether, ethylene glycol ethyl ether acetate and diethylene glycol butyl ether acetate) is tested according to those specified in Appendix A of this standard

5.2.4 Content of free formaldehyde is tested according to those specified in Appendix C of GB 18582-2008.

6.1.1 Under the normal production, at least once type inspection shall be carried out

every year.

6.1.2 Under one of the following conditions, type inspection shall be carried out at

any time.

6.2.1 Inspection results are judged according to rounding value comparison method

specified in GB/T 1250. When the inspection results after rounding are 0, the results shall be offered in one significant figure.

7.1 Mark on the product package shall not only meet those specified in GB/T 9750,

but also may be expressly indicated on the packaging mark according to the product that passes through the inspection in this standard.

8.3 After the coating is completed, the indoor ventilation continues to be maintained.

Appendix A

(Normative)

Test for Content of Volatile Organic Compound, Benzene Series, Glycol Ether and Its Esters - Gas Chromatography

A.1 Scope

This appendix specifies test methods for the content of volatile organic compounds (VOC), benzene series (benzene, toluene, ethylbenzene and dimethylbenzene), glycol ether and its esters (ethylene glycol monomethyl ether, ethylene glycol monomethyl ether acetate, ethylene glycol ethyl ether, ethylene glycol ethyl ether acetate and diethylene glycol butyl ether acetate) in water based woodenware coatings and water based putty.

A.2 Principle

After the sample is diluted, volatile organic compounds in the sample are separated through the gas chromatographic analysis technology; after qualitative identification of the measured compound, its content is tested by internal standard method.