



National Standard of the People's Republic of China

GB/T 36421—2018

Restricted substances applicable to printing inks used in packaging materials

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Foreword

This standard was drafted in accordance with the rules specified in GB/T 1.1-2009.

Please note that some of the content in this document may involve patents. The issuing organization of this document does not assume any responsibility for identifying these patents.

This standard was proposed by the China National Light Industry Council.

This standard is under the jurisdiction of the National Ink Standardization Technical Committee (SAC/TC 127).

The drafting units of this standard are: Shanghai Mudan Ink Co., Ltd., Bauhinia Ink (Zhejiang) Co., Ltd., Changshu Guoxin New Materials Co., Ltd., Chengdu Tuoze New Materials Co., Ltd., Hanghua Ink Co., Ltd., Zhejiang Yongzai Ink Co., Ltd., Guangdong Tianlong Ink Group Co., Ltd., Suzhou Coswood Ink Co., Ltd., Foshan Huihong Plastic Mould Co., Ltd., and Beijing Technology and Business University.

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Introduction

To minimize safety and environmental concerns associated with packaging inks in recent years, as well as the adverse ecological impacts stemming from the packaging printing industry's development, raw materials used in ink production are being reviewed. Certain chemicals unsuitable as raw materials for packaging inks are prohibited, thereby enhancing the safety and environmental friendliness of packaging inks.

Substances listed in this standard as unsuitable for use in packaging material inks exhibit characteristics such as high toxicity or allergenicity, carcinogenicity, mutagenicity, teratogenicity, or persistent environmental pollution, posing serious risks to human safety, health, and the environment. This standard encourages the manufacture and use of safer and more environmentally friendly packaging material inks to ensure the safety of printed packaging materials.

Restricted substances applicable to printing inks used in packaging materials

1 Scope

This standard specifies the management requirements and types of restricted substances in inks used for packaging materials.

This standard applies to the production, sale, and use of packaging printing inks. Other inks not intended for packaging materials may also be implemented by reference.

2 Terms, definitions, abbreviations

2.1 Terms and definitions

The following terms and definitions apply to this document.

2.1.1 printing ink

Ink

A dispersion system composed of pigments, binders, and auxiliary agents, which is transferred onto a substrate during the printing process to impart color.

[GB/T 15962—2018, Definition 2.1]

2.1.2 restricted substances

Substances prohibited in ink formulations.

2.1.3 package

A general term for containers, materials, and auxiliary items adopted according to specific technical methods to protect products during distribution, facilitate transportation, and promote consumption.

Note: Adapted from GB/T 4122.1—2008, Definition 2.1.

2.1.4 packaging containers

A general term for containers or packaging used for storing, transporting, or selling goods, commonly referred to as containers.

Examples: boxes, crates, barrels, cans, bottles, bags, baskets, etc.

2.1.5 packaging materials

Materials used for manufacturing packaging containers (2.1.4) and constituting product packaging.

Examples: Paper or paperboard, metal, plastic, glass, ceramics, wood, etc.

Note: Adapted from GB/T 4122.1—2008, Definition 5.1.

2.1.6 package printing

The process of printing graphic and textual information onto packaging materials (2.1.5) or packaging containers (2.1.4) for surface decoration and/or forming.