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PEOPLE'S REPUBLIC OF CHINA

GB 9685-2025

National Food Safety Standard — Standard for Uses of Additives in Food Contact Materials and Their Products

食品安全国家标准 食品接触材料及制品用添加剂使用标准

Issued on: October 19, 2016 **Implemented on: October 19, 2017**

Issued by: National Health and Family Planning Commission of the People's Republic of China.

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2025XG1 Amendment No.

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Foreword

This standard replaces GB 9685-2008 "Hygienic Standards for Uses of Additives in Food Containers and Packaging Materials".

Compared with 9685-2008, the main changes in this standard are as follows:

Additives in Food Contact Materials and Their Products";

- Some terms and definitions are revised while some, such as "total specific migration limit", are added;

application instructions for each appendix of this standard are added while the contents of specific migration and inspection method judgment are deleted;

are respectively listed in Tables A.1~A.7 in Appendix A; three columns, namely FAC No., SML (T) and SML (T) Group No., are added;

requirements (Appendix A) are revised, and the contents in Tables A.1~A.7 are added;

- Varieties of additives listed in Appendix A are increased from 958 kinds to 1294 kinds;

- 4 kinds of phthalate esters, such as dimethyl phthalate, are deleted, the usage scope of other phthalate esters and the types of foods they are limited from contact are adjusted;

scope of glass, metal, ceramic and enamel are deleted.

- Substances simultaneously listed in Table A.2 of GB 2760-2014 are deleted;

- 3 kinds of perfluorochemicals used in paper, such as perfluoroalkyl acrylate copolymer, are deleted;

products (such as 1,6-hexanediamine and phenol) are revised;

- Requirements of total specific migration limit (Appendix B) are added;

- Special limitation of metallic elements (Appendix C) is added;

universal category of resin approved in the Announcement of the former Ministry of Health (No. 23 [2011]) is added in Appendix D;

- Search directory ordered according to CAS No. and Chinese name (Appendix E) are added.

1 Scope

This standard specifies the using principles of additives in food contact materials and their products, as well as the variety, use scope, maximum level, specific migration limit or maximum residue quantity, total specific migration limit and other limit requirements of their allowable additives.

This standard also includes monomers of some basic polymers or other initiators of

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polyreaction used during the processing of food contact materials and their products.

2 Terms and Definitions

The substances added in food contact materials and their products during the production, which improve or help to improve their quality and characteristics so as to meet the intended use; they also include the processing agents (hereinafter referred to as "additive") added in production process so as to ensure the smooth development of production process other than improving the quality and characteristics of the final products.

2.2 Maximum usage quantity

The maximum allowable quantity of certain kind or type of additive added during the production of food contact materials and their products is expressed in mass fraction (%).

2.3 Maximum residue quantity (QM)

The maximum allowable quantity of certain kind or type of residue in food contact materials and their products, expressed by the amount of residue (in milligram) in each kilogram of food contact materials and their products (mg/kg) or by the amount of residue (in milligram) in each square decimeter of contact area between food contact materials/their products and foods (mg/dm2).

2.4 Specific migration limit (SML)

between food contact materials/their products and foods or food simulants (mg/dm2).

2.5 Total specific migration limit [SML (T)]

The total maximum allowable quantity of two or more kinds of additives migrating from food contact materials and their products to foods or food simulants contacting them, expressed by the quantity of the specified kind or type of migrated substance (or group) (in milligram) in each kilogram of foods or food simulants (mg/kg) or by the quantity of the specified kind or type of migrated substance (or group) (in milligram) in each square decimeter of contact area between food contact materials/their products and foods or food simulants (mg/dm2).

2.6 CAS No. (chemical abstract service)

2.7 Not detectable (ND)

The analyzed target substance shall not be detected out where the analysis method with specified detection limit (DL) is adopted.

2.8 FCA No.

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3 Using Principles of Additives in Food Contact Materials and Their Products

3.1 When the food contact materials and their products contact the foods under recommended use conditions, the level of additive migrating into foods and its impurity level shall not be harmful to human health.

3.2 When the food contact materials and their products contact the foods under recommended use conditions, the additive migrating into foods shall not change the composition, structure or color, aroma, taste, etc. of the foods (unless otherwise specified).

The quantity of additive used in food contact materials and their products shall be minimized under the premise of realizing the expected effect.

3.5 The substances listed in GB 2760, where permitted to be used as additives in food contact materials and their products, shall not generate technological function on the foods they contact.

4 Using Requirements of Additives in Food Contact Materials and Their Products

4.2 See Appendix A for food contact materials and their products allowable additives with their using requirements.

4.3 See Appendix B for the requirements of total specific migration limit.

4.4 See Appendix C for the special limitation of metallic elements.

4.5 See Appendix D for the meanings of plastic material acronyms. Appendix D describes the meanings of plastic materials and is only applicable to this standard.

4.6 See Appendix E for the retrieval catalogue ordered according to CAS No. and phonetic sequence.

Appendix A Food Contact Materials and Their Products - Allowable Additives

A.1 This appendix specifies allowable additives in various food contact materials and their products in table form. Additives in each table are ordered by the number of characters of Chinese names, numeric order and phonetic sequence of English alphabets and Chinese phonetic alphabets; meanwhile, they shall meet all those specified in each column of the table. A.2 The column of "maximum level" specifies the allowable maximum level of the additive. The column "maximum level" in the list of food contact plastic materials and their products allowable additives with their using requirements (Table A.1) also lists specific types of allowable plastic resins (expressed in acronyms). See Appendix D for the

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