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SJ

Standard of the Electronics Industry of the People's Republic of China
SJ/T 11363 – 2006

**Requirements for Concentration Limits for Certain Hazardous Substances in
Electronic Information Products**

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Preface

Appendix A of this standard is for informational purposes.
This standard is subject to the jurisdiction of China Electronic Standardization Institute.
The units that drew up the draft of this standard: The Fifth Research Institute of Electronics of the Ministry of Information Industry.
The units that participated in drafting this standard: Please see Appendix A.
Major drafters of this standard: Xiaohan Wang and Daojun Luo.

Introduction

At present, many electronic information products still contain large quantities of toxic or hazardous substances or elements such as lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl, polybrominated diphenyl ether, etc., due to functional and technical needs. If these electronic information products that contain hazardous substances are disposed of improperly after they have been discarded, they will not only pollute the environment, but will also result in a waste of resources. As a result, the control of pollution caused by electronic information products with a focus on decreasing and replacing hazardous substances or elements has been brought on the agenda of responsible government departments.

In order to achieve the goals of conserving resources and protecting the environment, seven agencies of the State Council including the Ministry of Information Industry, based on the principle of "controlling pollution sources and starting from legislation," formulated the *Management Methods for the Control of Pollution by Electronic Information Products* (Ministry of Information Industry, Order No. 39). They utilized legislative means to promote the control of pollution by electronic information products. The goal was to limit or prohibit the use of the above-mentioned six hazardous substances or elements in the research and development, design, production, sale, and import of electronic information products.

This standard was formulated in order to coordinate with the implementation of the *Management Methods for the Control of Pollution by Electronic Information Products*. This standard takes into consideration the need for producers and importers of electronic information products to control pollution by toxic or hazardous substances from the source, the feasibility of supervising and examining organizations to carry out monitoring or testing, and the requirements of relating to international standards, together with the present status of the industry and the economic and technological feasibility, to formulate reasonable concentration limits for the controlled usage of hazardous substances.

Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products

1. Scope

This standard stipulates the maximum permissible concentrations of hazardous substances in electronic information products. This standard is applicable to electronic information products listed in the Catalog for Priority Pollution Control as set forth in the *Management Methods for the Control of Pollution by Electronic Information Products*.

2. Normative Files

The clauses included in the following documents and cited in this standard shall become the clauses of this standard. For dated documents that are cited in this standard, none of their subsequent modifications (not including corrections) or amendments shall be applicable to this standard. However, each party to the agreements entered into in accordance with this standard is encouraged to study the possibility of adopting the latest editions of these documents. For all undated documents that are cited in this standard, their latest editions are applicable to this standard.

SJ/T 11365 – 2006 *Testing Methods for Hazardous Substances in Electronic Information Products*.

3. Terms and Definitions

The following terms and definitions are applicable to this standard.

3.1 Substance

This refers to elementary substances or compounds composed of chemical elements that exist in nature.

3.2 Hazardous Substance (HS)

This refers to lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ether (PBDE, not including decabromodiphenyl ether).

3.3 Electronic Information Products (EIP)

Electronic information products refer to the products and accessories manufactured with electronic information technology including electronic radar products, electronic communication products, broadcasting and television products, computer products, household electronic appliances, electronic surveying instruments, specialized electronic products, electronic components, electronic application products, and electronic material products.

3.4 Producer

This refers to a natural person or legal entity who engages in the production of electronic information products within the territory of the People's Republic of China.

3.5 Importer

This refers to a natural person or legal entity who engages in the importation of electronic information products within the territory of the People's Republic of China.

3.6 Materials

This refers to one substance or a mixture of several types of substances such as metal (plating coat, solder alloy, brass), plastic (ABS, nylon, PVC), ceramic (dielectric material), etc.

3.7 Homogeneous Materials

This refers to materials that are composed of one or several types of substances with each part being homogeneous.

3.8 Adding Hazardous Substances (HS) Intentionally

This would constitute adding hazardous substances intentionally when a producer or importer uses hazardous substances in its products so as to reach certain performance indices, meeting one of the following circumstances:

- 1) The lead, mercury and cadmium detected with the method stipulated in Chapter 5 of SJ/T 11365 – 2006 does not qualify; or
- 2) Hexavalent chromium is detected with the method stipulated in Clause 8.1 of SJ/T 11365 – 2006.

3.9 Components

This refers to structural units with certain functions or uses in electronic information products such as components, cases, supports, screws, switches, lead wires, etc.

3.10 Test Unit

This refers to the samples that may be directly provided for quantitative test without being further disassembled mechanically.

4. Requirements

Electronic information products are generally composed of parts and materials, while their basic structural units are materials. In order to realize the goal of limiting the use of hazardous substances, we first classify these structural units of the electronic information products in light of Table 1. In case of overlapping or contradictions in the classifications, they should be classified according to the EIP-A/EIP-B/EIP-C sequence, that is, if it can be classified to the category of EIP-A, it is then not desirable to be classified to the category of EIP-B or EIP-C. Each material or part that makes up of the electronic information products shall meet the corresponding technical requirements respectively. See Table 2 for the specific requirements.

Table 1 Classification of materials (unit) in EIP

Classification of Materials (Unit)	Definition of Materials (Unit)
EIP-A	Each homogeneous material composing EIP
EIP-B	Metallic coating of each part in EIP
EIP-C	Small components or materials that cannot be further disassembled under existing conditions in EIP. They generally refer to the products of equal to or less than 4 mm ³ in size.

Table 2 Requirements for concentration limits for toxic or hazardous substances

Unit is mass fraction

Classification of Materials (Unit)	Limit requirements
EIP-A	The contents of lead, mercury, hexavalent chromium, polybrominated biphenyl, polybrominated diphenyl ether (exclusive of decabromodiphenyl ether) in this category shall not exceed 0.1% and the content of cadmium shall not exceed 0.01%.
EIP-B	The hazardous substances including lead, mercury, cadmium, hexavalent chromium in this category shall not be added intentionally.
EIP-C	The contents of lead, mercury, hexavalent chromium, polybrominated biphenyl, polybrominated diphenyl ether (not including decabromodiphenyl ethers) in this category shall not exceed 0.1%, and the contents of cadmium shall not exceed 0.01%.

5. Test Rule

5.1 Test Unit

The test unit shall be each structural unit listed in Table 1 that constitutes the electronic information products.

5.2 Test Method

Refer to SJ/T 11365 – 2006 for the detailed test method for toxic or hazardous substances in electronic information products.

6. Qualification Evaluation

Where the contents of toxic or hazardous substances in all units of the electronic information products satisfy the requirements of Table 2, such electronic information products can be determined as qualified; if any unit does not meet the requirements of Table 2, they shall be judged as unqualified.

Appendix A

List of Units Participating in the Drafting of This Standard

(For Information Purposes)

(Listed according to the sequence in the pinyin [system] of the first letter of each name, and not intended to represent ranking)

Ericsson (China) Co., Ltd.
Epson (China) Co., Ltd.
Agilent Science and Technology Limited
Beijing Dabo Great Wall Solder Co., Ltd.
Pony Lab for Physical and Chemical Analysis
Beijing Rayleigh Analytical Instrument Corp.
Beijing Capitel Nokia Mobile Technology Co., Ltd.
AMD Semiconductor (China) Co., Ltd.
Dell (China) Co., Ltd.
Toto (China) Co., Ltd.
Founder Technology Group Corp.
Philips (China) Investment Co., Ltd.
Fujian Electronic Products Supervision and Inspection Institute
Central Iron and Steel Research Institute
Guangzhou Research Institute of Nonferrous Metals
International Business Machines (IBM) China Limited
Haier Group Technology Research and Development Center
Huawei Technologies Co., Ltd.
Huizhou TCL Computer Technology Co., Ltd.
Canon (China) Co., Ltd.
Jiangsu Electronic Products Supervision and Testing Institute
BOE Technology Group Co., Ltd.
Lucent Technologies (China) Co., Ltd.
Lenovo (Beijing) Co., Ltd.
Motorola (China) Electronics Co., Ltd.
Qingdao Hisense Group
Tsinghua University School of Materials Science and Engineering
NEC (China) Co., Ltd.
Hitachi (China) Co., Ltd. Shanghai Branch
Samsung Electronics (Beijing) Technological Services Co., Ltd.
Alcatel Shanghai Bell Co., Ltd.
SVA (Group) Co., Ltd.
Intertek Testing Services Ltd. Shanghai

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Shaoxing Tianlong Tin Materials Co., Ltd.
Shenzhen Center Testing International (CTI) Testing Technology Co., Ltd.
Shenzhen C.K.D. Electronic High-Tech Ltd.
Panasonic Corporation of China
Sony (China) Co., Ltd.
Suzhou UL China Certification and Inspection Co., Ltd.
Suzhou Electronic Product Testing Institute Co., Ltd.
Tianjin Electronics Institute
SGS-CSTC Standards Technical Services Co., Ltd.
Sharp Office Equipment (Changshu) Co., Ltd.
Xiamen Overseas Chinese Electronic Co., Ltd.
Electronic Packaging Laboratory of The Hong Kong University of Science and
Technology
Hong Kong Lexmark International (China) Co., Ltd.
MII Telecommunications Research Institute
MII Electronics No. 4 Research Institute
MII Electronics No. 5 Research Institute
MII Quality Supervision and Testing Center for Special-Purpose Materials
Brother (China) Ltd.
Panda Electronics Group Co., Ltd.
Albemarle (Shanghai) Co., Ltd.
Asia General Electronics Co., Ltd.
Intel (China) Co., Ltd.
China Quality Management Association for Electronics Industry
China Hewlett-Packard Co., Ltd.
China Household Electrical Appliances Association Discarded Electronic and Electric
Products Recycling Branch
China Household Electrical Appliance Research Institute
Chinese Society of Flame Retardant Manufacturers
ZTE Corporation