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

GB 28235-2020

Replacing GB 28235-2011

Hygienic requirements for ultraviolet appliance of disinfection

紫外线消毒器卫生要求

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Foreword

All technical contents of this standard are mandatory. This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB 28235-2011 "Safety and Hygiene Standards for Ultraviolet Air Disinfectors". Compared with GB 28235-2011, the main technical changes are as follows:

- Modified the scope;
- Modified the definition and name of "ultraviolet sterilization lamp" and added "ultraviolet disinfection", "ultraviolet disinfection device" and "upper level ultraviolet radiation" Definitions of "line air sterilizer", "ultraviolet effective dose", "ultraviolet water sterilizer", "ultraviolet surface sterilizer";
- Deleted the contents of "specifications and classifications" and "names and models" that do not belong to product safety and hygiene requirements;
- Modified the requirements for raw materials, made it into a separate chapter, and changed the requirements for raw materials closely related to product effectiveness and safety indicators to strong Mandatory clause;
- Modified the technical requirements and deleted the technical requirements for electrical safety;
- Modified the content of the application scope;
- Modified the content of "Precautions" and merged it with "Label and User Manual" into the chapter of "Nameplate and User Manual";

--- Added the relevant requirements of ultraviolet water disinfectant and ultraviolet surface disinfectant;

--- Added Appendix A "Measurement Method of Ultraviolet Intensity", Appendix B "Life Test Method", Appendix C "Air Disinfection Simulation Site" Test ", Appendix D" Air Disinfection Field Test ", Appendix E" Water Disinfection Laboratory Microbial Kill Test ", Appendix F" Water Disinfection Simulated field test and field test ", Appendix G" Object surface disinfection laboratory microorganism killing test "and Appendix H" Object table "Surface disinfection simulation field test and field test". This standard is proposed and managed by the National Health Commission of the People's Republic of China. This standard was drafted by: Jiangsu Provincial Health Supervision Office, Wuhan Center for Disease Control and Prevention, Shandong Provincial Health and Health Commission Law Enforcement Supervision Bureau, China Center for Disease Control and Prevention, Environmental and Health Related Product Safety Institute. The main drafters of this standard. Gu Jian, Liang Jiansheng, Cheng Yeqi, Yuan Qingchun, Shi Yuchang, Qiu Xingfen, Li Yan, Wang Jian, Zhou Yaoqing, He Zhiming, Qiao Weihang, Song Hengzhi, Huang Yehui. The previous versions of the standard replaced by this standard are as follows:

--- GB 28235-2011. Hygienic requirements for ultraviolet sterilizers

1 Scope

GB 28235-2020 is the Chinese national standard on hygienic requirements for ultraviolet appliance of disinfection, in the field of health care technology. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 9 April 2020 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 November 2020. Classification: ICS 11.080, CCS C50. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the raw material requirements, technical requirements, application scope, use methods, inspection methods, signs and packaging of ultraviolet sterilizers, Transportation and storage, nameplate and instruction manual. This standard applies to ultraviolet sterilizers with C-band ultraviolet (wavelength range of 200nm ~ 280nm) as the sterilization factor.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article Pieces. For the cited documents

without date, the latest version (including all amendments) applies to this document.

GB/T 191 Graphic mark for packaging, storage and transportation

GB 5749 Sanitary Standards for Drinking Water

GB/T 5750.2 Standard Test Method for Drinking Water Collection and Storage of Water Samples

GB/T 5750.12 Standard test method for drinking water Microbiological indicators

GB/T 10682 Double-end fluorescent lamp performance requirements

GB/T 14294-2008 Combined air conditioning unit

GB/T 15144 Performance requirements for AC electronic ballasts for tubular fluorescent lamps

GB 15982 Hygienic standard for hospital disinfection

GB/T 17219 Safety evaluation standard for drinking water transmission and distribution equipment and protective materials

GB/T 17262 Single-end fluorescent lamp performance requirements

GB 17625.1 electromagnetic compatibility limit harmonic current emission limit (equipment input current $\leq 16\text{A}$ per phase)

GB/T 17743 Limits and measurement methods for radio disturbance characteristics of electrical lighting and similar equipment

GB 17988 Safety and hygiene requirements for tableware disinfection cabinets

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Ultraviolet lamp A special electric light source that uses ultraviolet light directly for disinfection purposes.

3.2 Ultraviolet disinfection After pathogenic microorganisms absorb ultraviolet energy with a wavelength between 200nm and 280nm, their genetic The cells no longer divide and multiply, and achieve the purpose of disinfection to kill pathogenic microorganisms.

3.3 Ultraviolet disinfection ultraviolet disinfectionofdisinfection Using ultraviolet lamps as the light source and using the ultraviolet radiation radiated by the lamp as the sterilization factor to disinfect the pathogenic microorganisms on the transmission medium instrument.

3.4 Ultraviolet air disinfectors ultravioletapplianceforairdisinfection An ultraviolet sterilizer that uses ultraviolet lamps, filters, fans and ballasts to achieve the purpose of air disinfection.