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

GB/T 18202-2000

Hygienic standard for ozone in indoor air

室内空气中臭氧卫生标准

(English Translation)

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Foreword

70% time of the urban and rural residents is spent indoors; so, the indoor air quality is closely related to people's health. This Standard follows the principle of "introduction" and necessary verification; combine China's national conditions; after searching the relevant data at home and abroad, perform the verification-type ozone toxicity research and indoor ozone level investigation. After comprehensive analysis, considering prevent of toxic effects of ozone exposure, basing on toxicological indicators, referring to the foreign relevant standards (benchmarks), determine the hygienic standard for ozone in indoor air and inspection method. This Standard serves as one of the hygienic standards of national indoor air pollutants.

The Appendix A of this Standard is a standard appendix.

This Standard was proposed by the Ministry of Health of the PRC.

Drafting organization of this Standard. Publish Health Institute of SYSU.

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Hygienic Standard for Ozone in Indoor Air

1 Scope

This Standard specifies the maximum allowable concentration, monitoring and inspection method of the ozone in indoor air.

This Standard is applicable to the monitoring and evaluation of the indoor air; while not applicable to the indoor environment of the production site.

2 Normative References

The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. At the time of publication, the editions indicated are valid. All standards are subject to revision. The parties who are using this Standard shall explore the possibility of using the latest version of the following standards.

GB/T 15437-1995 Ambient Air - Determination of Ozone - Indigo Disulphonate Spectrophotometry

3 Standard Value

This Standard is expressed by average concentration of time, the average maximum allowable concentration in 1h is 0.1mg/m³.

4 Monitoring and Inspection Method

The monitoring and inspection method of this Standard can refer to Appendix A (standard appendix).

Appendix A

(Standard Appendix)

Monitoring and Inspection Method of Ozone Concentration in Indoor Air - Ultraviolet Photometric Method A.1 Principle this Method is based on the absorption of 254nm UV light by ozone; the light intensity is detected by the detector; then calculate the ozone concentration through the microcomputer processing the light intensity ratio between the sample air and the zero-air depleted ozone by the ozone scrubber.

A.2 Apparatus and technical conditions A.2.5 Zero drift. < 2μg/(m³-24h).

A.2.6 Operating temperature. 5~40°C; the standard calibration shall be performed at 25°C±1°C; use the instrument valid readings from 20°C to 30°C.

A.3 Instrument calibration it shall be performed as per the calibration of UV ozone analyzer specified in 6.1 of GB/T 15438.

A.4 Determination

A.4.1 Select the representative measuring point on the site.

A.4.5 The measuring time is 1h; at least read 12 data at a certain interval during this period; then obtain the average value.

A.4.6 When the concentration of suspended particles in the ambient air is measured greater than 100μg/m³, it is advisable to add a Teflon particle filter on the sample inlet.