JL-033-2006 Report No: 2007-V-0005

(Original Report in Chinese Writ ing)

## Military Medical Sciences, Institute of Microbiology and Epidemiology

# **TEST REPORT**

# **Bacteria Test**

# (Staphylococcus Aureus)

Report No: 2007-V-0005

Sample Tested: 'Bio-Oxygen' Air Purifier

Test Date: 2007, June 12th

Report Date: 2007, June 18th

Address: No. 20 Fengtai Domgdajie, Beijing

Tel: 010 6694 8509 Postcode: 100071 Fax: 010 6381 5259

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#### Declaration

- 1. The submission of this report is only responsible for the results of the sample.
- 2. If the present report is altered or deleted then it shall be invalid. If the report is not stamped with the official seal on every chapter then it shall be void.
- 3. A copy of this report shall be faxed for reference only but the original report shall prevail.
- 4. This report and the name of this body shall not be used for product labelling, trade description and advertising and so on.
- 5. Any disagreement with this report, following the report, called after one month, the original managers of the new provisions state that a late complaint shall be inadmissible.
- 6. The present report is in triplicate, a cross submission unit, the two archives.

Military Medical Sciences, Institute of Microbiology and Epidemiology

2005, January

Contact: Yue Zhao Tel: 010 6694 8509

Fax: 010 6381 5259

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#### Institute of Microbiology & Epidemiology

## Test Report Sheet (Main Page)

Principal: Ming Duang

Company: Beijing Othai Environmental Science & Technology Co. Test Date: 2007, June 12

Name of Equipment: 'Bio-Oxygen' Air Purifier

Number of Equipment & Condition: one, normal in line for testing Manufacturer: Beijing Othai Environmental Science & Technology Co.

Product Lot: N/A

Sample Code: 2007-V-0005

Sample Received by: Jianjun Zhao Test Date: 2007, June 12

Purpose and Requirement of Test: To best the disinfection efficiency with microbial aerosols

Test Standard: Reference (Disinfection Technical Specifications – 2002 Edition)

Persons performing Test: Jianjun Zhao, Jie Wang, Gubuo Weng

Testing Conditions and Pocecdures (a brief description):

- 1. Micro-organism Tested: Staphylocuccus Aureus 6538
- 2. TK Microbial Aerosol Generator, Anderson 6 airborne Microbial Sampler, Aerosol Counter and so on.
- 3. TK Microbial Aerosol Generator generating Staphylococcus Aureus produced aerosols, spray flow 8 l/minute. Aerosol concentration after 5 minutes: 1.4 x 10<sup>5</sup> and then turn on Air Purifier, adjust output to No.8 and test each sample for 5, 10 and 30 minutes. The sampling airflow capacity is 28.3 l/minute and the sampling time is 1 minute, 2 minutes respectively. The control group is tested without the air purifier for an equal time. The sampling airflow and time were the same.
- 4. The above tests are repeated 3 times.
- 5. The bacteria samples are then incubated at 37 C

#### **Test Result**

The average disinfection efficiency of the Bio-Oxygen Air Purifier is:

After 5 Minutes = 99.73% After 10 Minutes = 99.91% After 30 Minutes = 99.27%

The detailed results are shown on the attached table.

Test Person/Technical Title: Zhagbo Weng, Assistant Researcher 2007, June 18

Review Panel Signatures: Wenchen Lu, Song Li, Kai Zhao Under Institute Seal

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Attached Page

### **Test Results**

The Air Purifier was tested for the disinfection of Stapylococcus Aureus with the following results:

Number	Disinfection	Control without	Te: Surviving	st Group
of times Tested	Time (Minutes)	Disinfection (CFU/m3)	Numbers (CFU/m3)	Reduction (%)
1	5 10	120333 38627	0 0	100 100
	30	12086	0	100
2	5	120333	247	99.79 99.91
2	10 30	38627 12086	35 0	100
3	5 10	120333 38627	707 71	99.41 99.82
	30	12086	265	97.81

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