



201819000873

# TEST REPORT



中国认可  
国际互认  
检测  
TESTING  
CNAS L7673

Applicant : Qierling (Beijing) Health Technology Co., Ltd.  
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The following merchandise was (were) submitted and identified by the client as:

Name of Sample : 720 DS-X1000W Air Purifiering Disinfecter  
Test Type : Commission  
Sample Quantity : 1  
Model : DS-X1000W  
Batch No. : /  
Brand : 720  
Manufacturer: Healthlead Corproation Limited  
Sample Received : 2020/07/22  
Test Period : 2020/07/22-2020/08/11  
Test Items : Please refer to next page(s).  
Test Method : Please refer to next page(s).  
Test Result : Please refer to next page(s).  
Sample Description : Machine

Note: The appearance,color pattern, and network connection of model DS-X1000N are different from the main test model DS-X1000W, but the rest of the electrical structure and filter materials are exactly the same as the main test model.

Edited by: 黄婉晶

Approved by: [Signature]

Checked by: 叶智坚

Official Seal: [Red Seal: 广州中科检测技术服务有限公司 检验检测专用章]

**TEST RESULTS (1):**
**Table 1 Summary of test results**

Chapter	Test Item(s)	Unit	Test Result(s)		Limiting Value	Test Method(s)	
4.2.1	Removal rate (Simulated field test)	%	60min	>99.99	≥50%	GB 21551.3-2010	
			<i>Staphylococcus aureus</i>	60min			>99.99
			<i>Escherichia coli</i>	60min			>99.99
			<i>Candida albicans</i>	60min			>99.99
			<i>Aspergillus niger</i>	60min			>99.99
			<i>Pseudomonas aeruginosa</i>	60min			>99.99
	<i>Klebsiella pneumoniae</i>	60min	>99.99				

\*\*\*\*\* TO BE CONTINUED \*\*\*\*\*



**TEST RESULTS (2):**

Table 2 Test data of removal rate (simulated field test)								
Test bacteria	Test time (min)	Test number	Control group			Test group		Removal rate $K_t$ (%)
			Colony count before test $V_0$ (CFU/m <sup>3</sup> )	Colony count after test $V_t$ (CFU/m <sup>3</sup> )	Natural decay rate $N_t$ (%)	Colony count before test $V_1$ (CFU/m <sup>3</sup> )	Colony count after test $V_2$ (CFU/m <sup>3</sup> )	
<i>Staphylococcus aureus</i>	60	1	1.02×10 <sup>5</sup>	7.87×10 <sup>4</sup>	22.84	1.06×10 <sup>5</sup>	<6	>99.99
		2	8.87×10 <sup>4</sup>	6.56×10 <sup>4</sup>	26.04	9.18×10 <sup>4</sup>	<6	>99.99
		3	1.09×10 <sup>5</sup>	8.07×10 <sup>4</sup>	25.96	1.09×10 <sup>5</sup>	<6	>99.99
		Mean						
<i>Escherichia coli</i>	60	1	8.06×10 <sup>4</sup>	5.72×10 <sup>4</sup>	29.03	8.36×10 <sup>4</sup>	<6	>99.99
		2	8.87×10 <sup>4</sup>	6.56×10 <sup>4</sup>	26.04	9.10×10 <sup>4</sup>	<6	>99.99
		3	1.03×10 <sup>5</sup>	7.49×10 <sup>4</sup>	27.28	1.04×10 <sup>5</sup>	<6	>99.99
		Mean						
<i>Candida albicans</i>	60	1	7.95×10 <sup>4</sup>	5.72×10 <sup>4</sup>	28.05	7.82×10 <sup>4</sup>	<6	>99.99
		2	7.39×10 <sup>4</sup>	5.24×10 <sup>4</sup>	29.09	7.60×10 <sup>4</sup>	<6	>99.99
		3	9.96×10 <sup>4</sup>	7.47×10 <sup>4</sup>	25.00	9.81×10 <sup>4</sup>	<6	>99.99
		Mean						
<i>Aspergillus niger</i>	60	1	6.54×10 <sup>4</sup>	4.97×10 <sup>4</sup>	24.01	6.84×10 <sup>4</sup>	<6	>99.99
		2	9.18×10 <sup>4</sup>	6.61×10 <sup>4</sup>	28.00	9.44×10 <sup>4</sup>	<6	>99.99
		3	8.26×10 <sup>4</sup>	6.19×10 <sup>4</sup>	25.06	8.44×10 <sup>4</sup>	<6	>99.99
		Mean						
<i>Pseudomonas aeruginosa</i>	60	1	1.22×10 <sup>5</sup>	8.90×10 <sup>4</sup>	27.05	1.12×10 <sup>5</sup>	<6	>99.99
		2	8.45×10 <sup>4</sup>	6.26×10 <sup>4</sup>	25.92	8.18×10 <sup>4</sup>	<6	>99.99
		3	1.28×10 <sup>5</sup>	9.71×10 <sup>4</sup>	24.14	1.25×10 <sup>5</sup>	<6	>99.99
		Mean						
<i>Klebsiella pneumoniae</i>	60	1	7.26×10 <sup>4</sup>	5.66×10 <sup>4</sup>	22.04	6.88×10 <sup>4</sup>	<6	>99.99
		2	8.16×10 <sup>4</sup>	6.53×10 <sup>4</sup>	19.98	8.34×10 <sup>4</sup>	<6	>99.99
		3	9.14×10 <sup>4</sup>	6.95×10 <sup>4</sup>	23.96	9.36×10 <sup>4</sup>	<6	>99.99
		Mean						

\*\*\*\*\* TO BE CONTINUED \*\*\*\*\*

## Inspection instructions:

## 1. Test method

GB 21551.3-2010 Antibacterial and cleaning function for household and similar electrical appliances-Particular requirement of air cleaner (Annex A)

## 2. Test microorganism

*Staphylococcus aureus* ATCC6538, *Escherichia coli* 8099, *Candida albicans* ATCC10231, *Aspergillus niger* CMCC98003, *Pseudomonas aeruginosa* ATCC15442, *Klebsiella pneumoniae* ATCC13883

## 3. Test conditions

1) Environment temperature:(20~25)°C

2) Environment humidity:(50~70)%RH

## 4. Test equipment

Test chamber (30 m<sup>3</sup>), six-stage sieve sampler (FA-1), Microbial aerosol generator, NA,SDA,PDA.

## 5. Operation conditions of the machine

Set the switch to position "Maximum Wind Speed".

## 6. Computational formula

$$\text{Natural decay rate } N_t(\%) = \frac{V_0 - V_t}{V_0} \times 100$$

where:  $V_0$  = Colony count before test of control group;  $V_t$  = Colony count after test of control group

$$\text{Removal Rate } K_t(\%) = \frac{V_1 \times (1 - N_t) - V_2}{V_1 \times (1 - N_t)} \times 100$$

where:  $V_1$  = Colony count before test of test group;  $V_2$  = Colony count after test of test group.

\*\*\*\*\* TO BE CONTINUED \*\*\*\*\*

**SAMPLE PHOTO**



\*\*\*\*\* END OF REPORT \*\*\*\*\*

## Statement

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4. This report is invalid if being supplemented, deleted or altered.
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10. The result(s) or conclusion(s) shown in this report about the description of the characteristics, composition, properties or quality are based on the specific time, methods and applicable criteria. Using different methods and criteria or under different environmental conditions for testing may come to different conclusions.
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