GUANGZHOU TESTING CENTER OF INDUSTRIAL MICROBIOLOGY TEST REPORT

Date Received: Mar. 09, 2018

Name of Sample Applicant	UVC Sterilizer & Balanced Ion Air Purifier	Source of Sample	Delivery		
			1		
		Client			
Manufacturer		Brand			
Type and Specification		Quantity of Sample	1PC		
Date of Production	2018.03.07	Sample description	Machine		
Batch Number		Packing of Sample	In box		
Sample Picture					
Standard and Methods	GB21551.3-2010 Antibacterial and cleaning function for household and similar electrical appliances-Particular requirements of air cleaner				
Items of Analysis	Killing Rate (Escherichia coli 8099)				
Remarks	***To be continued				

To be continued





GUANGZHOU TESTING CENTER OF INDUSTRIAL MICROBIOLOGY TEST REPORT

Date Received: Mar. 09, 2018 Date Analyzed: Mar. 16, 2018

Test Method for Air Purifier Disinfection Performance:

- 1. Test equipment
 - 1) Strain: Escherichia coli
 - 2) Microbial aerosol generator: TK-3
 - 3) Culture media: NA
 - 4) Sampling equipment: six-stage sieve sampler
- 2. Test conditions
 - 1) The volume of the test chamber: 3 m³
 - 2) Ambient temperature: (20~25) ℃
 - 3) Ambient humidity: (50~70) %RH
- 3. Operation conditions of the air purifier

Set the switch to position: "The second level wind speed" (green light).

- 4. Test Procedure
 - 1) Get a bacteria slant culture (4~7 generation) which is incubated at 37 °C for 24 h, wash the culture from this slant with 10 mL NB, filter the liquid culture by aseptic cotton buds, and dilute this inoculums with NB as appropriate.
 - 2) The equipments are placed in the test chambers, close the door, and turn on the HEPA filter system. Simultaneously operate the environmental control devices until the temperature reaches 20 °C~25 °C, relative humidity reaches 50-70%. Turn off the chamber environmental control system.
 - 3) Release microbial aerosol: turn on the microbial aerosol generator, release the microbial aerosol for 15 mins ~20 mins at 0.2 MPa, turn on the ceiling fan, then turn off the fan after 10 mins, and let stand for 15 mins.
 - 4) Original bacteria aerosols collected by six-stage sieve sampler.
 - 5) The air purifier are adjusted to the highest air cleaning mode setting for test (test group). Bacteria aerosols (control group and test group) are collected at 1 h.
 - 6) Choose 2 NA plates (the same batch) as the negative control, and culture them on the same condition with the samples.
 - Run the test three times and take the mean as the final result.
- 5. Computational formula

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

Where: V_0 = original bacteria count of control group; V_t = bacteria count after treatment of control group.

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

Where: V_1 = original bacteria count of test group; V_2 = bacteria count after treatment of test group. ***To be continued***





GUANGZHOU TESTING CENTER OF INDUSTRIAL MICROBIOLOGY **TEST REPORT**

Date Received: Mar. 09, 2018

Date Analyzed: Mar. 16, 2018

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				C	ontrol Group		Test	Group	
Number of T	Test Time (h)	Test Strain	Test Number	Original Bacteria Count V_0 (cfu/m 3)	Bacteria Count after Treatment V_t (cfu/m 3)	Natural Decay Rate N, (%)	Original Bacteria Count V ₁ (cfu/m ³)	Bacteria Count after Treatment V ₂ (cfu/m ³)	Killing Rate K, (%)
			1	1.21×10^{5}	8.11×10^4	32.98	1.32×10 ⁵	1.60×10^{3}	98.19
KJ20180283-1			2	1.14×10 ⁵	7.56×10^4	33.68	1.26×10 ⁵	1.40×10^{3}	98.32
	1	1 Escherichia coli	3	1.24×10 ⁵	8.62×10^4	30.48	1.36×10 ⁵	1.70×10^3	98.20
			Mean	***************************************					98.24

*** End of report ***

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GUANGZHOU TESTING CENTER OF INDUSTRIAL MICROBIOLOGY TEST REPORT

Date Received: April 27, 2017

			: April 27, 2017 : April 28, 2017
Name of Sample	UVC Sterilizer & Balanced Ion Air Purifier	Source of Sample	Delivery
Applicant		Client	
Manufacturer		Brand	
Type and Specification		Quantity of Sample	1Set (2PCs)
Date of Production	Ministration in	State of Sample	Machine
Batch Number		Packing of Sample	In box
Sample Picture			
Standard and Methods	GB21551.3-2010 Antibacterial and cleanin electrical appliances-Particular requirements o	g function for househ f air cleaner	old and similar
Items of Analysis	Harmful Substances Release Amount (Ultravio	olet radiation intensity)	
Remarks		,	

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GUANGZHOU TESTING CENTER OF INDUSTRIAL MICROBIOLOGY **TEST REPORT**

Date Received: April 27, 2017

Date Analyzed: April 28, 2017

Method for Testing Harmful Substances Release Amount:

Test Equipment

Ultraviolet radiation intensity of illumination

Operation Conditions of the Machine 2.

Set the switch to position "Green Light Mode".

- **Test Procedures** 3.
 - 1) Put the test sample into a clean space.
 - Test the background concentration.
 - Turn on the test unit. Test the concentration values according to the standard requirements.

Test Results

Number of Sample	Items	Units	Results	Standard Request (GB 21551.3-2010)
	UV intensity			
KJ20170455-1	at 30 cm surrounding	$\mu W/cm^2$	1	≤5
	the device			•
Blank Below	99/14/00 2 2 4 4 4 4 4 4 4 4 6 6 6 7 1 1 2 4 5 6 7 4 5 7 5 7 5 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7	atrice and a single particular to the supervision and supervis		

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GUANGZHOU TESTING CENTER OF INDUSTRIAL MICROBIOLOGY TEST REPORT

Date Received: Oct. 25, 2017

		Date Analy	zed: Nov. 01, 2017	
Name of Sample	UVC Sterilizer & Balanced Ion Air Purifier	Source of Sample	Delivery	
Applicant		Client		
Manufacturer	,	Brand		
Type and Specification		Quantity of Sample	1PC	
Date of Production	2017.10.20	State of Sample	Machine	
Batch Number		Packing of Sample	In box	
Sample Picture				
Standard and Methods	GB21551.3-2010 Antibacterial and cleaning function for household and similar electrical appliances-Particular requirements of air cleaner			
Items of Analysis	Harmful Substances Release Amount (Ozone)			
Remarks				

To be continued







GUANGZHOU TESTING CENTER OF INDUSTRIAL MICROBIOLOGY TEST REPORT

Date Received: Oct. 25, 2017 Date Analyzed: Nov. 01, 2017

Method for Testing Harmful Substances Release Amount:

- Test Equipment Ozone Analyzer
- Operation Conditions of the Machine
 - Turn on the "Normally-on Mode (Green Light)".
- Test Procedure
 - 1) Put the test sample into a clean space.
 - Test the background concentration.
 - Turn on the test unit. Test the ozone concentration at 5 cm distance away from the air outlet. 3)

Test Results

Number of Sample	Items	Unit	Results	Standard Request (GB 21551.3-2010)
KJ20171579-1	Ozone (5 cm away from the	mg/m³	< 0.003	≤ 0.10
	air outlet)			

End of report

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