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ESCair/USA, Inc.
EFFICACY TEST REPORT

SCOPE OF WORK
Electrostatic & Catalysis Air Sanitizer performance

PRODUCT – Air Purifier

MODEL – KJ660-LFS

REPORT NUMBER
104605171COL-001

ISSUE DATE
June 22, 2021

PAGES 7

DOCUMENT CONTROL NUMBER
GFT-OP-10h (6-July-2017)

SECTION 1 EFFICACY STUDY SUMMARY

Client		**ESCair/USA, Inc. 816 Dover Street Boca Raton, FL 33487 USA**
Project No.		G104605171
Sample	Product	Air Purifier
	Model	KJ660-LFS
Procedural	Engineer	Leta Myers
	Reviewer	Nicholas Unger
	Dates Tested	6/16/21 – 6/17/21
	Report Date	06/22/2021
Standard	Non-standardized Test Method: Microbial Reduction Rate Test	
Testing Facility	Intertek Microbiological Laboratory 1717 Arlingate Ln. Columbus, OH 43228 United States	

SECTION 2 TEST PROCEDURE

The test chamber measured 10'x10'x10' (1000 cubic ft) room and a microbial suspension was aspirated into the chamber. Air samples were taken from the test chamber once the unit was turned on and sampling was taken every 15 minutes over a period of 2 hours, and then plated. The process was then repeated without the test unit in the chamber to provide the natural decay results. All plates were incubated overnight and viral growth on the test plate was compared to that of the natural decay control.

Air sampling took place using an SKC BioStage Single-stage impactor for 30 seconds at 12L/min (.424 cubic feet/min). Results below represent the percent reduction at 120 minutes.

SECTION 3 ORGANISMS

Organism Name	Organism Type	ATCC Number	Source
Phi X174 bacteriophage	small, non-enveloped virus	13706-B1	Carolina Bioscience
Staphylococcus epidermidis	Bacteria	12228	ATCC

SECTION 3 EQUIPMENT

Equipment Type	Equipment No.	Calibration Due Date
Micropipette	CE 2587	6/12/2021
Incubator	CE 2381	7/7/2021
Balance	CE 1882	7/7/2021
Autoclave	CE 2376	Verify Before Use
Centrifuge	CE 2382	For Reference Only
Chamber	CE 1149	For Reference Only
Collision Nebulizer	CE 1139	For Reference Only
Refrigerator	CE 1157	For Reference Only
Pump	CE 1137	For Reference Only
Stopwatch	SW013	07/07/2021
Ambient Temperature/RH	CE 1179	For Reference Only

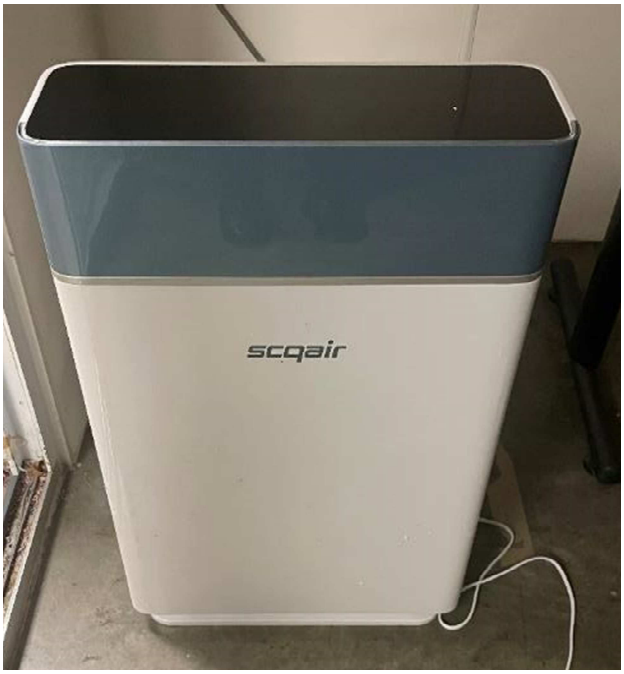
SECTION 4 MEDIA AND REAGENTS

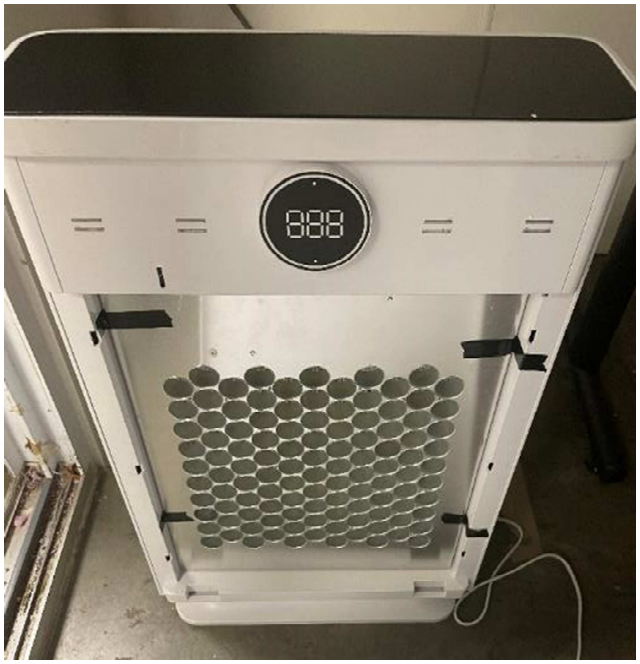
Type	Manufacturer	Lot No	Expiration Date
Nutrient Agar	DIFCO	9346039	10/31/2024
PBS	Fisher	192736	08/01/2022

SECTION 5 SAMPLE ACQUISITION

Acquisition method	Shipped to Intertek
Description	Air Purifier
Model Number	KJ660-LFS
Arrival date	6/11/2021
Condition	New
Sample Identification No.	COL2106111109-001
Development Level	Production

SECTION 6 SUMMARY OF RESULTS





Organism Type	Virus
Temperature Min/Max	19℃ (66.2℉)
Humidity Min/Max	44% RH
Organism Name	*Phi-X174*
Percent Reduction	99.6%

Organism Type	Bacteria
Temperature Min/Max	21℃ (69.8℉)
Humidity Min/Max	38% RH
Organism Name	*S. Epidermidis*
Percent Reduction	97.7%

Completed by:	Leta Myers	Reviewed by:	Nicholas Unger
Title:	Microbiology Tech I	Title:	Staff Engineer
Signature:		Signature	
Date	22-June-2021	Date:	22-June-2021

Annex A Test Results:

Test Parameter (With filter)		Test Result	Natural Decay Result	Units
Organism	Species	*Coliphage φX174*		---
	ATCC No.	13706-B1		---
	Challenge Concentration	5.0×10^9		PFU/mL
Samples	0	TNTC (2628)	TNTC (2628)	PFU
	15	TNTC (2628)	TNTC (2628)	PFU
	30	TNTC (2628)	TNTC (2628)	PFU
	45	234	TNTC (2628)	PFU
	60	156	TNTC (2628)	PFU
	75	66	TNTC (2628)	PFU
	90	21	TNTC (2628)	PFU
	105	10	TNTC (2628)	PFU
	120	10	TNTC (2628)	PFU
Results	--	99.6%		Reduction

Test Parameter (With filter)		Test Result	Natural Decay Result	Units
Organism	Species	*S. Epidermidis*		---
	ATCC No.	12228		---
	Challenge Concentration	8.8×10^8		CFU/mL
Samples	0	TNTC (2628)	TNTC (2628)	CFU
	15	TNTC (2628)	TNTC (2628)	CFU
	30	TNTC (2628)	TNTC (2628)	CFU
	45	218	TNTC (2628)	CFU
	60	177	TNTC (2628)	CFU
	75	111	TNTC (2628)	CFU
	90	108	TNTC (2628)	CFU
	105	76	TNTC (2628)	CFU
	120	59	TNTC (2628)	CFU
Results	--	97.7%		Reduction