

# GRAPHENE LABORATORIES INC. EFFICACY TEST REPORT

## SCOPE OF WORK

Non-standardized Test Method: Microbial Reduction Rate Test

**PRODUCT – Air Purifier**

**MODEL – Breathe+ Pro**

**REPORT NUMBER**  
104673149COL-001

**ISSUE DATE**  
June 7, 2021

**PAGES** 5

**DOCUMENT CONTROL NUMBER**  
GFT-OP-10h (6-July-2017)  
© 2021 INTERTEK



**SECTION 1 EFFICACY STUDY SUMMARY**

<b>Client</b>		<b>G6 Materials Corp. DBA Graphene Laboratories Inc. 760 Koehler Ave. Suite 2 Ronkonkoma, NY 11779</b>
<b>Project No.</b>		G104673149
<b>Sample</b>	Product	Air Purifier
	Model	Breathe+ Pro
<b>Procedural</b>	Engineer	Leta Myers
	Reviewer	Nicholas Unger
	Dates Tested	7/1/2021 – 7/2/2021
	Report Date	
<b>Standard</b>	Non-standardized Test Method: Microbial Reduction Rate Test	
<b>Testing Facility</b>	Intertek Microbiological Laboratory 1717 Arlingate Ln. Columbus, OH 43228 United States	

**SECTION 2 TEST PROCEDURE**

The test chamber measured 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
Escherichia coli	Bacteria	11229	ATCC

**SECTION 3 EQUIPMENT**

Equipment Type	Equipment No.	Calibration Due Date
Micropipette	CE 2587	6/2/2022
Incubator	CE 2381	7/7/2021
Incubator	CE2427	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	SW015	01/25/2022
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**

<b>Acquisition method</b>	Shipped to Intertek
<b>Description</b>	Air Purifier
<b>Model Number</b>	Breathe+ Pro
<b>Arrival date</b>	6/7/2021
<b>Condition</b>	New
<b>Sample Identification No.</b>	COL2106071513-001
<b>Development Level</b>	Production

**SECTION 6 SUMMARY OF RESULTS**

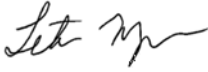



ANTIMIROBIAL EFFICACY TEST REPORT

GRAPHENE LABORATORIES INC.  
Report No.: 104673149COL-001

<b>Organism Type</b>	<b>Virus</b>
<b>Temperature Min/Max</b>	<b>21°C (70°F)</b>
<b>Humidity Min/Max</b>	<b>55% RH</b>
<b>Organism Name</b>	<i>Phi-X174</i>
<b>Percent Reduction</b>	99.9%

<b>Organism Type</b>	<b>Bacteria</b>
<b>Temperature Min/Max</b>	<b>21°C (70°F)</b>
<b>Humidity Min/Max</b>	<b>60% RH</b>
<b>Organism Name</b>	<i>E. coli</i>
<b>Percent Reduction</b>	99.9%

Completed by: Leta Myers  
Title: Microbiology Tech I  
Signature:   
Date: 2-July-2021

Reviewed by: Nicholas Unger  
Title: Staff Engineer  
Signature:   
Date: 2-July-2021