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Kinetic Solutions, Inc.

MICROBIOLOGICAL TEST REPORT

SCOPE OF WORK
MICROBIAL REDUCTION RATE – IMPACTOR COLLECTION TEST METHOD

PRODUCT
KINETIC SOLUTIONS (MODEL: BIOGS 2.0)

LABORATORY REPORT NUMBER
105550219COL-001

ISSUE DATE
08/17/2023

TESTING FACILITY
Intertek Columbus Microbiology Laboratory
1717 Arlingate Ln.
Columbus, OH 43228

DOCUMENT CONTROL NUMBER
RT-L-AMER-Test-8057

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MICROBIOLOGICAL TEST REPORT

SECTION 1 REPORT

TEST METHOD	**MICROBIAL REDUCTION RATE – IMPACTOR COLLECTION TEST METHOD**
CLIENT	KINETIC SOLUTIONS, INC Wei Chen 9242 1/2 Hall Rd Downey, CA 90241-5308 USA
LABORATORY PROJECT No.	G105550219
LABORATORY REPORT No.	105550219COL-001
DATES TESTED	07/31/2023-08/02/2023
REPORT DATE	08/17/2023

SECTION 2 TEST SAMPLE

DESCRIPTION	Air Purifier
MODEL	BioGS 2.0
ACQUISITION METHOD	Client Delivered Sample Via Mail
SERIAL NUMBER	N/A
ARRIVAL DATE	07/24/2023
SAMPLE ID	COL2203021017-003
CONDITION	New/Unopened
DEVELOPMENT LEVEL	Production

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TEST SAMPLE PHOTO 1.

SECTION 3 TEST SUMMARY

A Natural Decay (control) run is performed by aspiration of a microbial suspension into a test chamber. Samples are taken at prescribed intervals (see Test Result Tables located in Section 4 of this report), onto suitable agar plates per the organism, with use of a BioStage Standard Impactor.

A Test Run is performed with use of the same steps, except the test unit is activated following aspiration of the microbial suspension.

All samples are incubated and enumerated, accounting for positive-hole correction of the impactor and standard deviation. A percent reduction value is obtained with use of the enumeration data, by comparison of the Natural Decay to the Test Run.

SECTION 4 CHALLENGE MICROORGANISMS

Name	Type	ATCC Number	Source
A.niger	Mold (Fungi)	6275	ATCC
E.coli	Bacteria	11229	ATCC
MS2	Non-enveloped RNA Virus	15597B1	ATCC

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SECTION 5 TEST RESULTS

Organism: *E. coli*

Unit Test Setting: *Device On Fan High*

Run	Time (Minute)	Raw Plate Count (C/PFU)	Corrected values with standard deviation	Reduction (%)
Natural Decay Run	0	TNTC	2117.9	
	15	TNTC	2117.9	
	30	TNTC	2117.9	
	45	TNTC	2117.9	
	60	TNTC	2117.9	
	75	TNTC	2117.9	
	90	TNTC	2117.9	
	105	TNTC	2117.9	
	120	TNTC	2117.9	
Unit Test Run	0	TNTC	3138.1	**No Reduction**
	15	190	268.0	**87.3**
	30	18	19.0	**99.1**
	45	4	4.1	**99.8**
	60	<1	1.0	**99.9**
	75	<1	1.0	**99.9**
	90	<1	1.0	**99.9**
	105	<1	1.0	**99.9**
	120	<1	1.0	**99.9**

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MICROBIOLOGICAL TEST REPORT

Organism: *MS2*

Unit Test Setting: *Device On Fan High*

Run	Time (Minute)	Raw Plate Count (C/PFU)	Corrected values with standard deviation	Reduction (%)
Natural Decay Run	0	TNTC	2117.9	
	15	TNTC	2117.9	
	30	TNTC	2117.9	
	45	TNTC	2117.9	
	60	TNTC	2117.9	
	75	TNTC	2117.9	
	90	TNTC	2117.9	
	105	TNTC	2117.9	
	120	TNTC	2117.9	
Unit Test Run	0	TNTC	3138.1	**No Reduction**
	15	TNTC	3138.1	**No Reduction**
	30	TNTC	3138.1	**No Reduction**
	45	67	76.0	**96.4**
	60	2	2.1	**99.9**
	75	15	15.8	**99.3**
	90	<1	1.0	**99.9**
	105	4	4.1	**99.8**
	120	12	12.6	**99.4**

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MICROBIOLOGICAL TEST REPORT

Organism: *A. niger*

Unit Test Setting: *Device On Fan High*

Run	Time (Minute)	Raw Plate Count (C/PFU)	Corrected values with standard deviation	Reduction (%)
Natural Decay Run	0	TNTC	2117.9	
	15	TNTC	2117.9	
	30	TNTC	2117.9	
	45	TNTC	2117.9	
	60	TNTC	2117.9	
	75	TNTC	2117.9	
	90	TNTC	2117.9	
	105	74	78.8	
	120	64	67.2	
Unit Test Run	0	TNTC	3138.1	**No Reduction**
	15	TNTC	3138.1	**No Reduction**
	30	17	18.0	**99.2**
	45	2	2.1	**99.9**
	60	1	1.0	**99.9**
	75	<1	1.0	**99.9**
	90	<1	1.0	**99.9**
	105	<1	1.0	**98.7**
	120	<1	1.0	**98.5**

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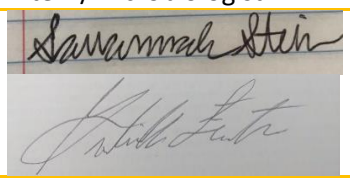
SECTION 6 RESULT SUMMARY

ORGANISM	E. coli
UNIT SETTING	High
PERCENT NET REDUCTION	[99.9% at 60 minutes]

ORGANISM	MS2
UNIT SETTING	High
PERCENT NET REDUCTION	[99.9% at 60 minutes]

ORGANISM	A. niger
UNIT SETTING	High
PERCENT NET REDUCTION	[99.9% at 45 minutes]

Completed by:	Savannah Stein/Gabrielle Fenton	Reviewed by:	Amanda Marunowski
Title:	Intern/Microbiologist	Title:	Microbiology team lead
Signature:		Signature	
Date	08/03/2023 , 08/17/2023	Date:	08/21/2023