中国认可 国际互认 检测 TESTING CNAS L7673

TEST REPORT

Applicant : Savewo Limited
Address : 1/F&2/F,266-270 Texaco Road, Tsuen Wan, Hong Kong

The following merchandise was (were) submitted and identified by the client as:

Name of Sample :	Savewo air purifier TGP-X1C
Test Type :	Commission
Sample Quantity :	2PCS
Model :	/
Batch No. :	/
Brand :	Savewo
Manufacturer:	Savewo Limited
Sample Received :	2023/01/03
Test Period :	2023/02/02-2023/02/09
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:	/

Edited by: 黄婉盈 **Approved by:**

Checked by: 卢智坚 **Official Seal:**

Add: No. 368 Xingke Road, Tianhe District, Guangzhou, P. R .China. E-mail: atc@gic.ac.cn
Tel: 400-119-8299，020-85231290 Website: http://www.cas-test.org

TEST RESULTS:

Table 1 Test data of virus aerosol removal

Virus strain	Test time (min)	Test number	Control group		Test group		Removal rate K_t (%)
			The original virus titer V_0 ($TCID_{50}/m^3$)	The final virus titer V_t ($TCID_{50}/m^3$)	The original virus titer V_1 ($TCID_{50}/m^3$)	The final virus titer V_2 ($TCID_{50}/m^3$)	
HCoV-229E	60	1	3.08×10^7	7.63×10^6	4.07×10^7	ND	>99.99
		2	3.74×10^7	8.11×10^6	4.23×10^7	ND	>99.99
		3	3.78×10^7	8.17×10^6	4.19×10^7	ND	>99.99
Remark: ND = Not detected							

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

Inspection instructions

1. Test method
   Technical Standards for Disinfection (2002) 2.1.3
2. Test item
   Virus strain:HCoV-229E(VR-740)
   Cell: Huh-7 Cell
3. Test equipment & materials
   Test chamber (30 m^3),Sampling pump, Aerosol generator,Liquid impingement sampler
4. Test condition
   1) Environment temperature：(20~25) ℃
   2) Environment humidity：(50~70) %RH
5. Operation condition of the machine
   Set the switch to position "Maximum Wind Speed".
6. Test procedure
   1) Adjust the temperature and relative humidity of the test chamber according to the requirements.
   2) Place the equipment to the test chamber and then close the door.
   3) Turn on the aerosol generator to atomize the virus and mix with a fan. After atomizing,virus was placed for a certain time.
   4) Collect the sample of the control group and test group before purification.
   5) Purification was carried out in the test chamber.The control chamber was used as comparison
   6) To the specified time, the test group and the control group were sampled at the same time..
   7) Test the virus titer of the collected sample, the procedure was as follow:
      a) The collected sample was diluted 10 times.
      b) The diluent was added to the 96-pore cell culture plates with monolayer cells, and the control group added the equivalent culture media.
      c) Cells were cultured at 35℃ and 5% CO_2 for 60 min, and discarded the supernatant. 400 IU/mL double antibody was added to maintenance culture media for 3~5 days. The cell morphology was observed.
      d) When the cells appeared to become round and shrink, record the cytopathic changes
      e) Viral titers were calculated by the Reed-Muench method and expressed as $TCID_{50}$.
   8) Calculate the virus titer and the removal rate, and this experiment repeated 3 times.
7. Computational formula

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

(V_0 = the original virus titer of control group, V_t = the final virus titer of control group)

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

(V_1 = the original virus titer of test group, V_2 = the final virus titer of test group)

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

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11. The data result(s) just for scientific research,teaching,internal quality control etc.
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201819000873

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Batch No. :	/
Brand :	Savewo
Manufacturer:	Savewo Limited
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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:	/

Edited by: 黄婉岛 Approved by:

Checked by: 卢智坚 Official Seal: 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)
5.3	CADR *Q*	Particulate	m^3/h	413.1	≥90% of nominal value	GB/T18801-2015
5.7	Removal rate (simulated field test)	*Staphylococcus albus*	%	99.79	≥50%	
		Escherichia coli		99.80		
		Staphylococcus aureus		99.78		
		Klebsiella pneumoniae		99.72		

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

TEST RESULTS (2):

Table 2 Test data of clean air delivery rate(particulate)			
Test Item	Natural decay constant k_n (min^{-1})	Total decay constant k_e (min^{-1})	CADR Q (m^3/h)
Particulate	0.0042	0.2337	413.1

Inspection instructions:

1. Test Method
   GB/T 18801-2015 Air cleaner (Annex B)
2. Test object
   Particulate (≥0.3 μm)
3. Test conditions:
   1) Environment temperature: (25 ± 2) ℃
   2) Environment humidity: (50 ± 10) %RH
4. Test equipment
   Test chamber (30 m^3), High density particle counter (SX-L301N)
5. Operation conditions of the machine
   Set the switch to position "Maximum Wind Speed".
6. Computational formula
   CADR Q (m^3/h) = $60\times(k_e - k_n)\times V$
   where: k_e = total decay constant; k_n = natural decay constant; V = volume of the test chamber, m^3

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

TEST RESULTS (3):

Table 3 Test data of removal rate (simulated field test)

Test bacteria	Test time (min)	Test No.	Control group		Test group		Removal rate K_t (%)
			Colony count before test V_0 (cfu/m³)	Colony count after test V_t (cfu/m³)	Colony count before test V_1 (cfu/m³)	Colony count after test V_2 (cfu/m³)	
Staphylococcus albus	60	1	1.20×10^5	9.53×10^4	1.14×10^5	1.94×10^2	99.79
		2	1.12×10^5	8.80×10^4	1.11×10^5	1.71×10^2	99.80
		3	1.15×10^5	8.52×10^4	1.10×10^5	1.77×10^2	99.78
		Mean					99.79
Escherichia coli	60	1	1.09×10^5	8.39×10^4	1.17×10^5	1.65×10^2	99.82
		2	1.14×10^5	8.52×10^4	1.17×10^5	1.88×10^2	99.79
		3	1.16×10^5	8.86×10^4	1.12×10^5	1.71×10^2	99.80
		Mean					99.80
Staphylococcus aureus	60	1	1.12×10^5	8.49×10^4	1.14×10^5	1.77×10^2	99.80
		2	1.14×10^5	8.33×10^4	1.09×10^5	1.65×10^2	99.79
		3	1.10×10^5	8.41×10^4	1.11×10^5	2.00×10^2	99.76
		Mean					99.78
Klebsiella pneumoniae	60	1	1.04×10^5	8.01×10^4	1.09×10^5	2.24×10^2	99.73
		2	1.12×10^5	8.45×10^4	1.02×10^5	2.36×10^2	99.69
		3	1.10×10^5	8.29×10^4	1.07×10^5	2.18×10^2	99.73
		Mean					99.72

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 albus 8032 (*Staphylococcus lentus* CICC10897),*Escherichia coli*(8099),*Staphylococcus aureus*(ATCC6538),*Klebsiella pneumoniae (ATCC4352)*
3. Test conditions
   1) Environment temperature:(20~25)℃
   2) Environment humidity:(50~70)%RH
4. Test equipment
   Test chamber (30 m³), six-stage sieve sampler (FA-1), Microbial aerosol generator, NA
5. Operation conditions of the machine
   Set the switch to position "Maximum Wind Speed".
6. Computational formula

   Natural decay rate $N_t(\%)=\frac{V_0-V_t}{V_0}\times100$

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

   Removal Rate $K_t(\%)=\frac{V_1\times(1-N_t)-V_2}{V_1\times(1-N_t)}\times100$

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

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