



# TEST REPORT

98, Gyoyukwon-ro, Gwacheon-si, Gyeonggi-do, 13810, Korea

TEL 82-2-2164-0011

FAX 82-2-2634-1008

Report No : TBK-2020-001514

Receipt Date : 2020.03.10.

Representative : KWON ROK HEE

Test Completion Date : 2020.04.13.

Company name : IONIA CO.,LTD

Address : 163-11,12, 291, Doyak-ro, Bucheon-si, Gyeonggi-do, Korea.

Sample name : water ionizer(SM-S230TL)

## Test Results

TEST ITEM	UNIT	SAMPLE	RESULT	TEST METHOD
Bactericidal test( <i>E. coli</i> )	Log reduction	After 1 minute	> 5.64	ASTM E2315-16
Bactericidal test( <i>E. coli</i> )	Log reduction	After 3 minutes	> 5.64	ASTM E2315-16
Bactericidal test( <i>E. coli</i> )	Log reduction	After 5 minutes	> 5.64	ASTM E2315-16
Bactericidal test( <i>S. aureus</i> )	Log reduction	After 1 minute	> 5.51	ASTM E2315-16
Bactericidal test( <i>S. aureus</i> )	Log reduction	After 3 minutes	> 5.51	ASTM E2315-16
Bactericidal test( <i>S. aureus</i> )	Log reduction	After 5 minutes	> 5.51	ASTM E2315-16

- Next Page -

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2020.04.13

## Korea Testing & Research Institute

President



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Page : 1 of 3

전자문서본은 시험결과에 대한 참고용입니다.

전자문서본(Electronic Copy)



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### \* Test conditions

- Preparation of test solution : The test article was operated for 10 minutes, and the solution produced from the test article was used as the test solution.
- Operation mode : Strong acid water(salt solution addition: 25 g of salt / 450 mL of tap water)
- Reaction temperature : (22 ± 2) °C
- Reaction time : 1 minute, 3 minutes and 5 minutes

### \*\* Test strain

- *Escherichia coli* ATCC 10536
- *Staphylococcus aureus* ATCC 6538

### \*\*\* Log reduction(LR)

LR = mean log (microbial population) – mean log (surviving test population)

### \*\*\*\* Interpretation of the results

- log reduction ≥ 1: ≥ 90 %
- log reduction ≥ 2: ≥ 99 %
- log reduction ≥ 3: ≥ 99.9 %
- log reduction ≥ 4: ≥ 99.99 %
- log reduction ≥ 5: ≥ 99.999 %

Attachment: Test report

- Usage of Report : QUALITY CONTROL

- Next Page -

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- Note :
1. The test results of this test report are only limited in to the samples and sample names provided by the client and do not guarantee the quality of all products of the client. You Can check website (www.ktr.or.kr) or QR code to verify the authenticity of the certificate.
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