

## **IDENTIFICATION OF TESTING LABORATORY**

### **IDENTIFICATION OF CLIENT**

OKA International Sdn. Bhd.  
13-2, Jalan Tanjung SD13/1  
Bandar Sri Damansara  
52200 Kuala Lumpur  
Malaysia

### **IDENTIFICATION OF TEST ITEM**

Test item name: OKA Ozone Atom Sterilizer

Lab ID: O002-22-001

Serial no.: Atom0001196

Expiry date: Not applicable

Manufacturer: OKA International Sdn. Bhd.

Receipt date: 25 April 2022

Storage conditions: Room temperature away from sunlight

Product diluent recommended by manufacturer: Not specified

Active substances: Hydrolysed infused ozonated water

Product appearance: Clear, colourless liquid produced mineral water processed using the test item

### **TEST METHOD & VALIDATION**

Test method: EN 14476:2013+A2:2019  
Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of virucidal activity in the medical area – Test method and requirements (Phase 2, step 1)

Titration method: Quantal tests (TCID<sub>50</sub> method)

Inactivation method: Dilution in ice-cold maintenance media (growth media with 2% serum)

## **EXPERIMENTAL CONDITIONS**

Date of test:	11 May - 14 June 2022
Product diluent:	Distilled water
Concentration / contact time:	100%* / 30 seconds $\pm$ 5 seconds 100%* / 1 minute $\pm$ 5 seconds 100%* / 5 minutes $\pm$ 10 seconds
Test temperature:	(30 $\pm$ 1) °C
Interfering substance:	Clean condition (0.3 g/L bovine serum albumin)
Test organism / passage no.:	Human coronavirus (HCoV-229E), strain 229E, ATCC VR-740 / P16
Cell line / passage no.:	MRC-5 ATCC CCL-171 / P11
Growth medium:	DMEM supplemented with 10% foetal bovine serum and 1% penicillin-streptomycin
Incubation temperature:	(36 $\pm$ 1) °C, 5% CO <sub>2</sub>
Incubation period:	2 to 5 days
Appearance of the product dilutions:	Clear, colourless liquid
Stability and appearance of product dilutions during test:	Homogenous without any precipitate



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\* The product can only be tested at a concentration of 80% or less as some dilution is always produced by adding the test organisms and interfering substance.

**TEST RESULTS**

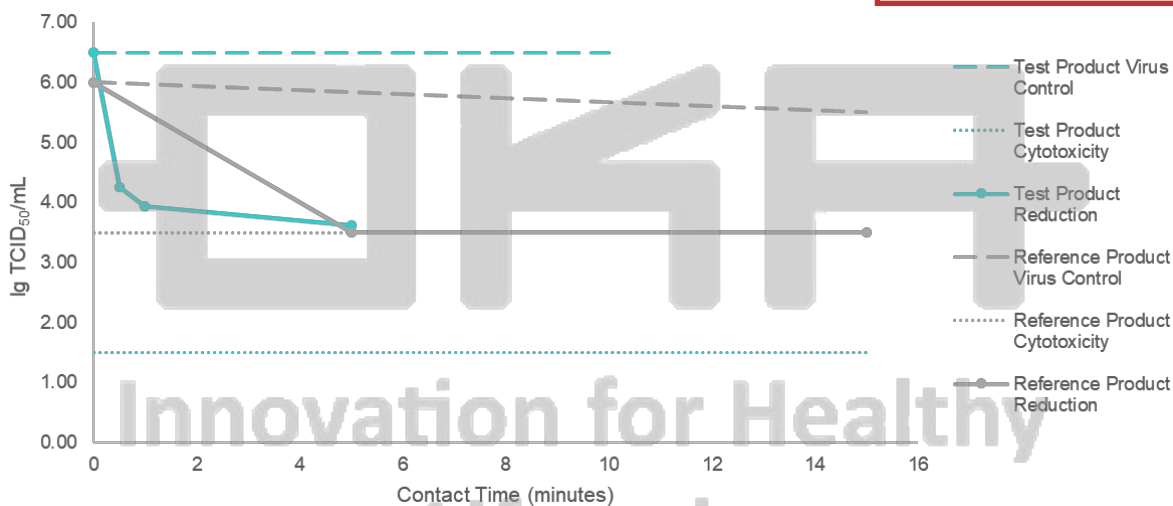
For each product concentration and contact time, the log reduction (lg R) is calculated using the formula  $lg R = N - Na$ , in which:

- N is the lg TCID<sub>50</sub> per mL of the virus control at the end of the contact time, and
- Na is the lg TCID<sub>50</sub> per mL of the test mixture at the end of the contact time.

Test organism: Human coronavirus (HCoV-229E) ATCC VR-740

Virus control, N	N <sub>1</sub> : 6.50 ± 0.00 N <sub>2</sub> : 6.50 ± 0.00
Cytotoxicity effect, CE	CE <sub>1</sub> : 1.50 ± 0.00 CE <sub>2</sub> : 1.50 ± 0.00

Concentration / Contact Time	Test, Na	Reduction, lg R = N - Na	Average Reduction, lg R
100%* / 30 seconds	Na <sub>1</sub> : 4.00 ± 0.38 Na <sub>2</sub> : 4.50 ± 0.46	lg R <sub>1</sub> : 2.50 ± 0.38 lg R <sub>2</sub> : 2.00 ± 0.46	lg R: 2.25 ± 0.42 %R: 99.438%
100%* / 1 minute	Na <sub>1</sub> : 3.75 ± 0.50 Na <sub>2</sub> : 4.13 ± 0.45	lg R <sub>1</sub> : 2.75 ± 0.50 lg R <sub>2</sub> : 2.38 ± 0.45	lg R: 2.56 ± 0.48 %R: 99.726%
100%* / 5 minutes	Na <sub>1</sub> : 3.75 ± 0.33 Na <sub>2</sub> : 3.50 ± 0.46	lg R <sub>1</sub> : 2.75 ± 0.33 lg R <sub>2</sub> : 3.00 ± 0.46	lg R: 2.88 ± 0.40 %R: 99.867%



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