NANOCARE SA 600 CHRIS HANI RD GREENWOOD PARK, DURBAN NORTH **UNIT 5** 4051 082 495 3279 082 775 2282

TEST REP NO : 015/22 **ISSUE NO** : 001 REPORT DATE : 11/08/22 DATE REC : 11/07/22 DATE TESTED : 17/07/22

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ATTENTION: SHAUN VAN WYNGAARD

1. CONDITION OF SAMPLE ON RECEIPT PRIOR TO TESTING: ACCEPTABLE

2. DESCRIPTION OF SAMPLE:

NANOCHLOR/NANOPURE-3.25G DISINFECTANT TABLET 52% NaDCC-0.008%

QUANTUM NANO SILVER 1x3.25G=1000ppm/1LT WATER

BN:18901 DATE:01/05/2022 EXPIRY:02/05/2025

PRODUCT BRAND NAME: NANOCARE

3. TEST REQUESTED AND OBJECTIVE OF THE TESTING:

Swab testing of treated surfaces, to determine the residual bactericidal activity of the sample/product at a 1,7 and 14 day period.

### 4. TEST METHOD REFERENCED:

SANS 5763: Testing of environmental swabs for the T.A.C. (Total Aerobic Count of the recoverable organisms present).

### 5. TEST PROCEDURE:

- -A melamine surface, cleaned and disinfected with 70% ethanol, was used for the testing. Ethanol was given sufficient time to dry and evaporate before any testing commenced.
- -Surfaces were also swabbed for control testing purposes and to ensure levels of sterility during testing.
- -All surfaces were marked for identification, with sufficient spacing to ensure completion of all tests.
- -The surface was then sanitised/disinfected with the product (Nanochlor/Nanopure disinfectant tablet) in a solution of tap water, the test area was disinfected by the spray and wipe method.
- -Surface area of 10cm<sup>2</sup> was then inoculated with the E.coli organism, using 1ml of the inoculum preparation (organism count used per ml  $\pm 1.0 \times 10^9$  cfu/ml).
- -After organism exposure and contact time of 3 hours, the surfaces were then swabbed for T.A.C, recovery of organisms, still present.
- -The above test was carried out at the 1, 7 and 14 day period.

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6. TEST RESULTS: SPRAY AND WIPE METHOD, 3 HOUR EXPOSURE TIME Organism: E.coli ATCC 8739

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Viable Organisms Added 0 Time	Control Count	Spray and wipe Surface	% Kill Rate
$6.0 \times 10^{8}$	5.0 x 10 <sup>6</sup>	4.0 x 10 <sup>4</sup>	99.20

#### DAY 7

Viable Organisms Added 0 Time	Control Count	Spray and wipe Surface	% Kill Rate
$4.0 \times 10^9$	1.0 x 10 <sup>8</sup>	3.0 x 10 <sup>1</sup>	99.99

### **DAY 14**

Viable Organisms Added 0 Time	Control Count	Spray and wipe Surface	% Kill Rate
$3.0 \times 10^{9}$	9.0 x 10 <sup>6</sup>	0.0	100

# 7. INTERPRETATION OF RESULTS

The actives in the product (Nanochlor/Nanopure disinfectant tablet) within the prescribed exposure time of 3 hours has reached a 100% kill rate of the E.coli organisms present, with a range of between 99.20 and 100%. This was done using a spray and wipe method of application to the melamine surface at the 1, 7 and 14 day period.

COMMENTS:

REPORTED BY: R. KHOURY

MICROBIOLOGIST

REPORTED BY: E. MOHLAPING

LAB MANAGER

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NANOCARE SA 600 CHRIS HANI RD GREENWOOD PARK, DURBAN NORTH UNIT 5 4051 082 495 3279 082 775 2282

TEST REP NO : 016/22 **ISSUE NO** : 001 REPORT DATE : 11/08/22 : 11/07/22 DATE REC DATE TESTED : 17/07/22

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ATTENTION: SHAUN VAN WYNGAARD

1. CONDITION OF SAMPLE ON RECEIPT PRIOR TO TESTING: ACCEPTABLE

2. DESCRIPTION OF SAMPLE:

NANOCHLOR/NANOPURE-3.25G DISINFECTANT TABLET 52% NaDCC-0.008%

QUANTUM NANO SILVER 1x3.25G=1000ppm/1LT WATER

BN:18901 DATE:01/05/2022 EXPIRY:02/05/2025

PRODUCT BRAND NAME: NANOCARE

3. TEST REQUESTED AND OBJECTIVE OF THE TESTING:

Swab testing of treated surfaces, to determine the residual bactericidal activity of the sample/product at a 1,7 and 14 day period.

### 4. TEST METHOD REFERENCED:

SANS 5763: Testing of environmental swabs for the T.A.C. (Total Aerobic Count of the recoverable organisms present).

## 5. TEST PROCEDURE:

- -A melamine surface, cleaned and disinfected with 70% ethanol, was used for the testing. Ethanol was given sufficient time to dry and evaporate before any testing commenced.
- -Surfaces were also swabbed for control testing purposes and to ensure levels of sterility during testing.
- -All surfaces were marked for identification, with sufficient spacing to ensure completion of all tests.
- -The surface was then sanitised/disinfected with the product (Nanochlor/Nanopure disinfectant tablet) in a solution of tap water, the test area was disinfected by the spray and wipe method.
- -Surface area of 10cm<sup>2</sup> was then inoculated with the Staph Aureus organism, using 1ml of the inoculum preparation (organism count used per ml  $\pm 1.0 \times 10^9$  cfu/ml).
- -After organism exposure and contact time of 3 hours, the surfaces were then swabbed for T.A.C, recovery of organisms, still present.
- -The above test was carried out at the 1, 7 and 14 day period.

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6. TEST RESULTS: SPRAY AND WIPE METHOD, 3 HOUR EXPOSURE TIME

Organism: Staph Aureus ATCC 6538

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Viable Organisms Added 0 Time	Control Count	Spray and wipe Surface	% Kill Rate
$2.0 \times 10^{8}$	$4.0 \times 10^{7}$	2.3 x 10 <sup>7</sup>	42,50

#### DAY 7

Viable Organisms Added 0 Time	Control Count	Spray and wipe Surface	% Kill Rate
$7.0 \times 10^{9}$	9.0 x 10 <sup>8</sup>	7.0 x 10 <sup>4</sup>	99.99

### **DAY 14**

Viable Organisms Added 0 Time	Control Count	Spray and wipe Surface	% Kill Rate
$7.3 \times 10^9$	2.6 x 10 <sup>9</sup>	3.9 x 10 <sup>3</sup>	99,99

## 7. INTERPRETATION OF RESULTS

The actives in the product (Nanochlor/Nanopure disinfectant tablet) within the prescribed exposure time of 3 hours has reached a 99,99% kill rate of the Staph Aureus organisms present, with a range of between 42,50% and 99,99%. This was done using a spray and wipe method of application to the melamine surface at the 1, 7 and 14 day period.

COMMENTS:

REPORTED BY: R. KHOURY

MICROBIOLOGIST

REPORTED BY: E. MOHLAPING

LAB MANAGER

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