NANOTEC S.A.

CERTIFIES THAT UNDER THE STANDARD EN 14476 "VIRUCIDAL QUANTITATIVE SUSPENSION TEST FOR CHEMICAL DISINFECTANTS AND ANTISEPTICS USED IN MEDICAL FIELD" ACCORDING TO REPORT CODE: IT-NPCU- COVID-19

"COPPER NANOPARTICLES ELIMINATE 99.9% OF THE HUMAN SARS-COV-2 VIRUS"

The copper nanoparticles produced by Nanotec S.A. were subjected to the antiviral effectiveness study in a Level 4 Biosafety Laboratory on "Severe Acute Respiratory Syndrome associated Coronavirus 2"

(SARS-CoV-2)

Passing all the validation criteria of the EN 14476 standard.

Abstract

IT-NPCU- COVID-19

"According to the EN 14476 standard, the test agent passes the Virucidal Quantitative Suspension Test if there is at least a four-log reduction in viral titer beyond the cytotoxicity level. When tested as described, Copper Nanoparticles in suspension met the EN 14476 standard when SARS-CoV-2 was exposed to the test agent".

NANOTEC S.A

Nanotec S.A. Chile, Av La Divisa 01011, San Bernardo – Santiago, www.nanotecchile.com

STANDAR: EN 14476
PRODUCT: COPPER NANOPARTICLES.
LABORATORY: LEVEL 4 BIOSAFETY LABORATORY.
REPORT CODE: IT-NPCU- COVID-19
DATE: 10-05- 2020

CRITERIA FOR A VALID ASSAY

The test is acceptable for evaluation of the test results if the criteria listed below are satisfied.

1. The test virus suspension possesses at least a concentration which allows the determination of a 4.0 Log_{10} of the virus titer.

Result: Approved.

2. Contact times and COPPER NANOPARTICLES concentrations that delivered viral reduction factors greater than 4.0 Log_{10} are discriminated in:

Tables 6 and 7.

3. The cytotoxicity of the product solution does not affect host cell viability in the dilutions of the test mixtures which are necessary to demonstrate a 4.0 Log_{10} reduction of the virus.

Result: Approved.

4. Viral-induced cytopathic effect (CPE) is distinguishable from test product induced cytotoxic effect in the viral interference assay, if any.

Result: Approved.

5. Virus is not detected in the cell viability control.

Result: Approved.

6. The difference of titer between the test product-treated and PBS-treated monolayers is 1.0 Log_{10} in the viral interference assay.

Result: Approved

7. The viral reduction of the reference agent against Sars-CoV-2 should be 4.0 Log_{10} (according to European regulations).

Results: Approved.

NANOTEC S.A