



TURKISH REPUBLIC
ISTANBUL UNIVERSITY
ISTANBUL FACULTY OF MEDICINE
Department of Microbiology and Clinical Microbiology

TO WHOM IT MAY CONCERN

"VIRUSSAFE MEDICAL AIR PURIFIER" branded Filterless Plasma Ion Generator- Air Sterilization Equipment's effectiveness is tested by our Head Microbiological Department Laboratories by request of Equipment manufacturer Nero Industries LTD.

Test Startup Date: 22.11.2010

Test Termination Date: 20.01.2011

Test Location: Istanbul Faculty of Medicine, Department of Microbiology and Clinical Microbiology

Test Material : VIRUSSAFE MEDICAL brand, Filterless Plasma Ion Generator, Model- Air Sterilization Equipment

Test Equipments : 1 m³ Volume Isolated Test Chamber with Solution Diffuser and Safe Reach Accessories.

Test Procedure : The test based on sterilization of the air contaminated with different bacterial strains. For this purpose, 1 m³ volumetric isolated test chamber was performed. One Virussafe Medical Air Purifier Unit was placed on the floor of the chamber. Bioburden of environmental air with bacteria was measured before getting in action with VIRUSSAFE MEDICAL Equipment. The Petri dishes were opened and collected by the using sterile hand gloves. The test was conducted by opening Petri dishes containing bacterial media previously prepared on the floor of the chamber followed by pulverization of 100 ml of bacterial suspension containing 10⁵ CFU bacteria/ml density for 5 minutes to chamber air. The following bacteria were used; *Staphylococcus aureus* ATCC 6538, *Pseudomonas aeruginosa* NCTC 6749, *Escherichia coli* ATCC 11229, *Bacillus subtilis* var. *niger* ATCC 9372. The equipment was started up and at the end of the tested times; 5, 15, 30, and 60 minutes, all Petri dishes were collected and incubated at 35 °C for 48 hours. The ratio of change in bacterial colony number (amount) CFU was recorded and calculated accordingly. The experiments were repeated 3 times and the mean number was shown in the table below.

Table 1: Bacteria Colony Count and Reduction Data

Bacterial culture in Petri dish	S.aureus ATCC 6538 <u>Activation time (minutes)</u>			P.aeruginosa NCTC 6749 <u>Activation time (minutes)</u>			E.coli ATCC 11229 <u>Activation time (minutes)</u>			B. subtilis var niger ATCC 9372 <u>Activation time (minutes)</u>		
	0	5	60	0	5	60	0	5	60	0	5	60
	Colony Forming Unit (cfu) Quantity	1333	230	113	163	6	-	51	44	2	186	36
% Reduction	0	82.70	91.50	0	96.30	99.99	0	86.53	91.15	0	80.70	89.30

(-): No growth

As seen on the table, the equipment performed sterilization on the tested bacteria as %82,7 to %96,3 in five (5) minutes and % 91.5-% 99.99 sterilization in 60 minutes.

"VIRUSSAFE MEDICAL AIR PURIFIER" brand , Filterless Plasma Ion Generator- Air Sterilization Equipment 's performance is recorded and approved on the air contaminated with pathogenic microorganisms, thus, playing an important role in reduction of epidemic infection risk and have prevention usage.

Head of Department

NOTE: These results are valid only for experimented sample and not to be used for advertising purposes.

Prof. Dr. Bülent GÜRLER