Tests report (EN 13727)

This test report specifies a suspension test for establishing whether a chemical disinfectant or an antiseptic has a **bactericidal** activity in the area and fields described in the scope. This laboratory test takes into account practical conditions of application of the product including:

- contact time
- temperature
- test organisms
- interfering substances

Table1. Test condition

Reference regulation	BS EN **13727**
Identification of the testing laboratory	CIF B-96337217
Test organism	a) Escherichia coli K12, NCTC 10538 b) Pseudomonas aeruginosa, ATCC 15442 c) Staphylococcus aureus, ATCC 6538 d) Enterococcus hirae, ATCC 10541 e) Enterococcus faecium, ATCC 6057
Sample volume	1 Liter
Active substance(s)	NaOCL-HOCL-H_2O_2-Cl_2-CLO_2-O_3-O'-Water

Table2. Identification of the sample and experimental conditions

Name of the product	Multi Oxidant Disinfection Solution
batch number	20-05-01
manufacturer	BACO Environmental Engineering & Technology S.L.
date of delivery	15/05/2020
storage conditions	Room temperature and darkness
product diluent recommended by the manufacturer for use	Potable water (soft water)
active substance(s) and its/their concentration(s) (optional)	-
appearance of the product	Clear-Liquid
diluent used for product test solution	Distilled water
product test concentrations (ppm)	(%100)8000-(%75)6000-(%50)4000-1000-100-20-10-2
contact time(min)	60-5-2
test temperature	Room temperature and darkness
stability and appearance of the mixtures during the procedure,	Transparent
temperature of incubation	36 °C
Interfering substances	bovine albumin 0,3 g/l.

1 Test method and its validation (evaluation of bactericidal activity)

This European Standard specifies a suspension test for establishing whether a chemical disinfectant or an antiseptic has a bactericidal activity in the area and fields described in the scope. Each utilization concentration of the chemical disinfectant or antiseptic found by this test corresponds to the chosen experimental conditions.

1.1 Requirements

The product shall demonstrate at least a 5 decimal log (lg) reduction, when tested in accordance with Table 1 & 2.

1.2 Test method

A sample of the product as delivered and/or diluted with hard water (or water for ready to use products) is added to a test suspension of bacteria in a solution of an interfering substance. The mixture is maintained at one of the temperatures and the contact times specified above. At the end of this contact time, an aliquot is taken; the bactericidal and/or the bacteriostatic action in this portion is immediately neutralized or suppressed by a validated method. The method of choice is dilution-neutralization. If a suitable neutralizer cannot be found, membrane filtration is used. The numbers of surviving bacteria in each sample are determined and the reduction is calculated.

1.3 Culture media and reagents

- Water
- Tryptone Soya Agar (TSA)
- Diluent
- Neutralizer
- Rinsing liquid (for membrane filtration)
- Hard water for dilution of products

Test results

From the outcomes for experimenting 2 of repetitions per test with different microorganism mentioned Table 1 in 2, 5, and 60 min, at least a 4 decimal log (lg) reduction might be resulted when tested in accordance with Table 1 & 2 through all diluted samples. It can concluded BACO Mixed Oxidant Solution is an antibacterial solution.