

3 in 1 Washroom Sanitiser

Product code: CP401/CP402

Introduction

The standard method 1276 describes a suspension test method for establishing whether a chemical disinfectant or antiseptic has or does not have bactericidal activity in the fields described in the scope. The test takes into account practical conditions of application of the product, including contact time, temperature, test organisms and interfering substance, i.e. conditions which may influence its action in practical situations.

The conditions are intended to cover general purposes and to allow reference between laboratories and product types. Each utilization concentration of the chemical disinfectant or antiseptic found by this test corresponds to defined experimental conditions. However, for some applications, the recommendations of use of a product may differ and therefore additional test conditions may need to be used.

Outline of Test Method

A sample of the test product is diluted and added to a test suspension of bacteria in a solution of interfering substance. The mixture is maintained at 20°C for 5mins. At the end of the contact time an aliquot is taken and the bacterial / bacteriostatic activity is immediately neutralised or suppressed by the validated method. The numbers of surviving bacteria in each sample are determined and the reduction is calculated.

The test is performed using *Pseudomonas aeruginosa*, *Escherichia coli*, *Staphylococcus aureus* and *Enterococcus hirae* as standard organisms.

Deviations from Standard Method

The test was carried out at 30sec, 1min and 2min contact times.

Test Results (bactericidal suspension test)

Validation and controls		Validation Suspension (N_{v0})		Experimental Conditions Control (A)		Neutraliser or Filtration Control (B)		Method Validation (C)		
$Tc1$	Ps.60 Ec.100 Ent.70 MRSA.50	$\bar{x} =$ Ps.61.5 Ec.105 Ent.69	$\bar{x} =$ Ps.40 Ec.60 Ent.60 MRSA.50	$\bar{x} =$ Ps.44 Ec.59.5 Ent.61	$Tc1$	Ps.50 Ec.50 Ent.50 MRSA.40	$\bar{x} =$ Ps.53 Ec.56.5 Ent.49	$Tc1$	Ps.55 Ec.60 Ent.58 MRSA.40	$\bar{x} =$ Ps.57.5 Ec.60 Ent.59 MRSA.40.5
$Tc2$	Ps.63 Ec.110 Ent.68 MRSA.53	MRSA.51.5	Ps.48 Ec.59 Ent.62 MRSA.51	MRSA.50.5	$Tc2$	Ps.56 Ec.63 Ent.48 MRSA.38	MRSA.39	$Tc2$	Ps.60 Ec.60 Ent.60 MRSA.41	
$30 \leq \bar{x} \text{ of } N_{v0} \leq 160?$ Yes		$\bar{x} \text{ of } A \text{ is } \geq 0.5 \times \bar{x} \text{ of } N_{v0}?$ Yes		$\bar{x} \text{ of } B \text{ is } \geq 0.5 \times \bar{x} \text{ of } N_{v0}?$ Yes		$\bar{x} \text{ of } C \text{ is } \geq 0.5 \times \bar{x} \text{ of } N_{v0}?$ Yes				

Pre Test - Sample Sterility check	
AMB	<10cfu/ml Pass
Y&M	<10cfu/ml Pass

Test Organism	Bacterial or Fungal Test Suspension : N	Test Procedure Contact Times				Pass/Fail
		30 Seconds	1 Minute	2 Minute		
<i>Pseudomonas aeruginosa</i> ATCC 15442	10 ⁻⁷ : 15 ; 14	10 ⁻¹ : 0 ; 0	10 ⁻¹ : 0 ; 0	10 ⁻¹ : 0 ; 0		Pass
	No : 7.20	Na : 0 R : 7.20	Na : 0 R : 7.20	Na : 0 R : 7.20		
<i>Escherichia coli</i> ATCC 10536	10 ⁻⁷ : 21 ; 20	10 ⁻¹ : 0 ; 0	10 ⁻¹ : 0 ; 0	10 ⁻¹ : 0 ; 0		Pass
	No : 7.30	Na : 0 R : 7.30	Na : 0 R : 7.30	Na : 0 R : 7.30		
<i>Staphylococcus aureus</i> ATCC 6538	10 ⁻⁷ : 19 ; 21	10 ⁻¹ : 0 ; 0	10 ⁻¹ : 0 ; 0	10 ⁻¹ : 0 ; 0		Pass
	No : 7.30	Na : 0 R : 7.30	Na : 0 R : 7.30	Na : 0 R : 7.30		
<i>Enterococcus hirae</i> ATCC 10541	10 ⁻⁷ : 30 ; 33	10 ⁻¹ : 0 ; 0	10 ⁻¹ : 0 ; 0	10 ⁻¹ : 0 ; 0		Pass
	No : 7.49	Na : 0 R : 7.49	Na : 0 R : 7.49	Na : 0 R : 7.49		

Key

No Log₁₀ number of cfu/ml at the beginning of the contact time = N/10

N_{vo} is the number of cfu/ml in the validation test suspension at the beginning of the contact time

A is the verification of experimental conditions control

B is the neutraliser toxicity control

C is method validation

V_c is the colony forming units counted per 1ml of sample

\bar{x} is the average of V_{c1} & V_{c2}

\bar{x} _{wm} is the weighted mean of N

N_a Log₁₀ number of surviving cfu/ml in the test mixture

R (lg N₀ - lg N_a = lg R) is the calculation for reduction in viability

PASS = lg R greater than or equal to 5

FAIL = lg R less than 5

> greater than

≥ equal to or greater than

< less than

≤ equal to or less than