

Test Report: EN 1650 Chemical disinfectants and antiseptics — Quantitative suspension test for the evaluation of fungicidal activity of chemical disinfectants and antiseptics used in food, industrial, Domestic and institutional areas — (phase 2, step 1)

Test Laboratory

BluTest Laboratories Ltd

Robertson Incubator (Level 4)
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Identification of sample

Name of the product
Project Code
Manufacturer

DUOMAX DR 1

BT-DUO-04
DUO TECH LTD, 11-12 QUEENS SQUARE, BRISTOL, BS1
4NT
29 October 2010
Room Temperature
Not known

Date of Delivery
Storage conditions
Active substances

Test Method and its validation

Method

Filtration-neutralization
Neutralizer: Lecithin 3g/l, Polysorbate 80 30g/l, sodium
thiosulphate 5g/l, L-histidine 1g/l, phosphate buffer
0.0025mol/l, sterilized by autoclave.

Experimental Conditions

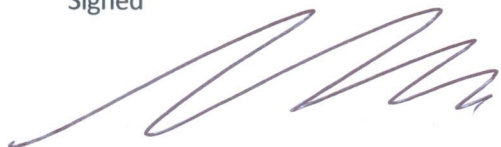
Period of analysis
Product diluent used
Product test concentrations
Appearance product dilutions
Contact time
Test temperature
Interfering substance
Stability of mixture
Temperature of incubation
Identification of strains

2 to 15 December 2010
Sterile synthetic hard water
10% V/V; 50% V/V; 80% V/V
Clear product solution
 $t = 1 \text{ min} \pm 10 \text{ s}$; $t = 5 \text{ min} \pm 10 \text{ s}$; $t = 15 \text{ min} \pm 10 \text{ s}$
 $20^\circ\text{C} \pm 1^\circ\text{C}$
0.3 g/l bovine serum albumin
Stable
 $30^\circ\text{C} \pm 1^\circ\text{C}$
Candida albicans ATCC 10231
Aspergillus niger ATCC 16404

Conclusion

According to EN 1650, **DUOMAX DR 1** possesses fungicidal activity at a concentration of 50.0 % V/V of the working concentration as tested after 15 minutes at 20°C under **CLEAN** conditions (0.3 g/l bovine serum albumin) for the referenced strains *Candida albicans* ATCC 10231 and *Aspergillus niger* ATCC 16404.

Signed



Dr Chris Woodall, Director
BluTest Laboratories Ltd
Glasgow, UK, 22 December 2010

EN 1650 Results for the efficacy of DUOMAX DR 1 from DUOTECH LTD under CLEAN CONDITIONS against *Candida albicans*

Test organisms	Validation test				Fungal test Suspension (N)	Exposure time (mins)	Test procedure at concentration % (V/V)			
	Fungal Suspension (Nv)	Experimental conditions (A)	Neutralizer toxicity control or filtration control (B)	Dilution-neutralizer control of filtration test control (C)				10	50	80
<i>Candida albicans</i>	Vc: 130; 117	Vc: 56; 76	Vc: 82; 62	Vc: 50; 50	10^{-5} : >330; >330 10^{-6} : 42; 37 N: 4.0×10^7	15	Vc	0; 0	0; 0	0; 0
ATCC 10231	Nv : 1.2×10^3	A : 6.6×10^1	B : 7.2×10^1	C : 5.0×10^1			Na	$<1.5 \times 10^2$	$<1.5 \times 10^2$	$<1.5 \times 10^2$
							R	$>10^4$	$>10^4$	$>10^4$
						5	Vc	0; 0	0; 0	0; 0
							Na	$<1.5 \times 10^2$	$<1.5 \times 10^2$	$<1.5 \times 10^2$
							R	$>10^4$	$>10^4$	$>10^4$
						1	Vc	0; 0	0; 0	0; 0
Na	$<1.5 \times 10^2$	$<1.5 \times 10^2$	$<1.5 \times 10^2$							
						R	$>10^4$	$>10^4$	$>10^4$	
Vc = viable count N = number of cfu/ml of the fungal test suspension Nv = number of cfu/ml in the fungal suspension R = reduction in viability Na = number of cfu/ml in the test mixture A = number of cfu/ml of the experimental conditions validation B = number of cfu/ml of the neutralizer toxicity validation or of the filtration validation C = the number of cfu/ml of the dilution-neutralization validation or the membrane filtration test validation										

EN 1650 Results for the efficacy of DUOMAX DR 1 from DUOTECH LTD under CLEAN CONDITIONS against *Aspergillus niger*

Test organisms	Validation test				Fungal test Suspension (N)	Exposure time (mins)	Test procedure at concentration % (V/V)			
	Fungal Suspension (Nv)	Experimental conditions (A)	Neutralizer toxicity control or filtration control (B)	Dilution-neutralizer control of filtration test control (C)				10	50	80
<i>Aspergillus niger</i>	Vc: 38; 30	Vc: 25; 29	Vc: 21; 20	Vc: 21; 26	10 ⁻⁵ : 140; 128 10 ⁻⁶ : 14; 20 N: 1.7 x 10 ⁷	15	Vc	>150; >150	0; 0	0; 0
ATCC 16404	Nv: 3.4 x 10 ²	A: 2.7 x 10 ¹	B: 2.1 x 10 ¹	C: 2.4 x 10 ¹			Na	>1.5 x 10 ³	<1.5 x 10 ²	<1.5 x 10 ²
							R	<10 ⁴	>10 ⁴	>10 ⁴
						5	Vc	>150; >150	>150; >150	29; 34
							Na	>1.5 x 10 ³	>1.5 x 10 ³	3.1 x 10 ²
							R	<10 ⁴	<10 ⁴	<10 ⁴
						1	Vc	>150; >150	>150; >150	>150; >150
							Na	>1.5 x 10 ³	>1.5 x 10 ³	>1.5 x 10 ³
							R	<10 ⁴	<10 ⁴	<10 ⁴
Vc = viable count N = number of cfu/ml of the fungal test suspension Nv = number of cfu/ml in the fungal suspension R = reduction in viability Na = number of cfu/ml in the test mixture A = number of cfu/ml of the experimental conditions validation B = number of cfu/ml of the neutralizer toxicity validation or of the filtration validation C = the number of cfu/ml of the dilution-neutralization validation or the membrane filtration test validation										

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