

## Test Report: EN 1656 2009 Chemical disinfectants and antiseptics — Quantitative suspension test for evaluation of bactericidal activity of chemical disinfectants and antiseptics used in veterinary field — (phase 2, step 1) Modified for *Streptococcus suis*

### Test Laboratory

### BluTest Laboratories Ltd

Robertson Incubator (Level 4)  
Robertson Building  
56 Dumbarton Road  
Glasgow  
UK - G11 6NU

### Identification of sample

Name of the product  
Batch number  
Client

### VIRKON S

1402BA0122  
ANTEC INTERNATIONAL LTD, Windham Road, Chilton  
Industrial Estate, Sudbury, Suffolk, CO10 2XD  
BT-ANT-07  
20 February 2014  
<25°C, dry place  
KMPS

Project Code  
Date of Delivery  
Storage conditions  
Active substances

### Test Method and its validation

Method

Chemical-neutralization

Neutralizer

Lecithin 11.7g/l, Polysorbate 80 100g/l, sodium thiosulphate 5.0g/l, sodium dodecyl sulphate 10.0g/l, sodium chloride 8.5g/l, tryptone 1.0g/l sterilized by autoclave.

### Experimental Conditions

Period of analysis  
Product diluent used  
Product test concentrations  
Appearance Product Dilutions  
Contact time (minutes)  
Test temperature  
Interfering substance  
Stability of mixture  
Temperature of incubation  
Identification of strain

20 February to 17 March 2014  
Sterile, hard water  
1:100; 1:200; 1:400  
Stable  
 $t = 30 \pm 10$  s  
 $10^{\circ}\text{C} \pm 1^{\circ}\text{C}$   
3.0g/l bovine serum albumin  
Stable  
 $37^{\circ}\text{C} \pm 1^{\circ}\text{C}$   
*Streptococcus suis* ATCC 43765/NCTC 10234

## EN 1656 Results for the efficacy of VIRKON S from ANTEC INTERNATIONAL LTD under CLEAN conditions

Test organisms	Validation test				Bacterial test suspension (N)	Test procedure at concentration % (V/V)		
	Bacterial Suspension (Nv)	Experimental conditions (A)	Neutralizer toxicity Control or filtration control (B)	Dilution-neutralization control or filtration test control (C)		1	0.5	0.25
<i>Streptococcus suis</i>	Vc: 70 ; 63	Vc: 59 ; 52	Vc: 59 ; 61	Vc: 34 ; 19	10 <sup>-6</sup> : 264 ; 304 10 <sup>-7</sup> : 24 ; 29 N: 2.84E+08	Vc 0 ; 0 Na <1.40E+02 R >10(5)	0 ; 0 <1.40E+02 >10(5)	0 ; 0 <1.40E+02 >10(5)
ATCC 43765	Nv: 6.65E+02	A: 5.55E+01	B: 6.00E+01	C: 2.65E+01				
Validation	30 ≤ Nv <sub>0</sub> ≤ 160 ? yes	A ≥ 0.5 x Nv <sub>0</sub> ? yes	B ≥ 0.5 x Nv <sub>0</sub> ? yes	C ≥ 0.5 x Nv <sub>0</sub> ? C=0.4 x Nv <sub>0</sub>	7.17 ≤ log N <sub>0</sub> ≤ 7.70 ? yes	Test is valid		

Please note: the upper limit for counting bacterial plates is 330 cfu. Enter as >330

Vc = viable count

N = number of cfu/ml of the bacterial test suspension

Nv = number of cfu/ml in the bacterial 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

Please note that the Control C value was slightly suppressed at 0.4 x Nv<sub>0</sub> at a concentration of 1.0% V/V. This is a strong disinfectant and at 0.25% V/V still shows a pass, such that this slight suppression of the control C value is unlikely to have affected the final result of the test.



## Conclusion

According to an EN 1656 2009 protocol, **VIRKON S** possesses bactericidal activity at a concentration of 1:400 dilution as tested after 30 minutes at 10°C under **CLEAN** conditions (3.0g/l bovine serum albumin) for referenced strain *Streptococcus suis* ATCC 43765/NCTC 10234.

Signed



Dr Chris Woodall, Director  
BluTest Laboratories Ltd  
Glasgow, UK  
18 March 2014

## DISCLAIMER

The results in this test report only pertain to the sample supplied.

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