Study Title:

Antimicrobial efficacy of disinfectants for veterinary and agricultural use BS 6734:2004

Job reference – J001212

Lab Ref/Report No.	**J001212**
Testing Laboratory **Site** **Company owner**	**Microbiological Solutions Limited** **Gollinrod, Walmersley, Bury, BL9 5NB** **Angela Davies, Managing Director**
Report Date	**27/11/19**
Period of Analysis	**14/11/19 – 15/11/19**

Customer	**Zoono UK & Europe**
Contact Name	**James Milnes**
Address	**Unit 15, Bunting Road, Bury St Edmunds IP32 7BX**
Email	**james.milnes@zoono.com**
PO Number/Quote Ref	**Q001875**

Name of product	Microbe Shield Z-71
Batch number	8318
Manufacturer / Supplier	Zoono Limited
Storage Conditions	Ambient
Appearance of the Product	Clear Liquid
Preservatives/Actives & Conc.%	N/S
Standard Method	BS 6734:2004
Neutraliser/Inactivator	N6
Product diluent	Distilled water (ready to use product)
Test Concentrations *	Neat
Experimental Conditions	Dirty
Interfering substances	5% w/w yeast suspension
Test Temperature	4°C ±1°C
Temperature of Incubation	Bacteria - 37°C ±1°C for 24hr to 48hrs
Identification of the Bacterial strains:	*Salmonella typhimurium NCTC 12023*
Contact times	Bacteria – 30 minutes ± 10s

* Products supplied as “neat” can only be tested at a concentration of 80% or less, as some dilution is always produced by adding test organisms and interfering substance.

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Introduction

The standard method BS 6734:2004 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 (Obligatory test conditions)

A sample of the test product is added to equilibrated challenge medium (Broth culture and Yeast suspension) it is mixed thoroughly and then held at 4°C for the contact time. Samples are shaken at 10-minute intervals for the proposed contact time. After the contact time has elapsed 0.1ml of the product/challenge medium mix is transferred to 10ml of inactivator/neutraliser solution and left for 5 minutes. 1ml of the inactivator solution is then transferred to 5 recovery broth tubes and incubated at 37°C ± 1°C for 24-48 hours.

Deviations from Standard Method

Salmonella typhimurium was used instead of *Mycobacterium fortuitum*
Microbiology grade yeast extract used instead of baker's yeast.

Acceptance Criteria
The product when tested as above shall demonstrate growth in no more than 1/5 recovery broth tubes.

Conclusion

The product **Microbe Shield Z-71** has **Passed** the test according to the acceptance criteria as outlined in the standard. With **no growth** present in 5 of the 5 recovery broth tubes.

See raw data tables below for test results.

The sample will be retained for 1 month unless otherwise requested.

Laboratory Manager
Megan Barrett

Technical Project Manager
Peter Thistlethwaite

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Validation and controls

Test Organism	Suspension N
Salmonella	10^6 >330 ; >330
typhimurium	10^7 49 ; 45
NCTC 12023	N_0 : 7.67 Valid

Sample Name	Growth/ No Growth
Negative Control	No Growth
Positive Control	Growth
Test 1	No Growth
Test 2	No Growth
Test 3	No Growth
Test 4	No Growth
Test 5	No Growth

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