

## Certificate of Analysis

Biocity Nottingham  
Pennyfoot Street  
Nottingham NG1 1GF

Customer: **Paul Ward – J P Filpak**  
Product: **Germ Warfare Surface Cleaner**  
Batch: **None identified**  
Work Order: **709** Sample: **S0702001**  
Initial Test Date: **20 February 2007.**  
Quote: **Q279** Purchase Order: **29-1-6**

Tel: 0115 912 4265  
Fax: 0115 912 4267  
Email: [office@fdas.org](mailto:office@fdas.org)  
[www.fdas.org](http://www.fdas.org)

### Test Method: BS EN 1276

Organism	Validation Test				Bacterial Test Suspension (cfu/ml)	Test Procedure at Working Concentration	
	Bacterial Suspension	Experimental Conditions	Neutraliser Toxicity	Dilution Neutralisation		V <sub>C</sub>	N <sub>a</sub>
MRSA ATCC 43300	V <sub>C</sub> 146, 151 N <sub>v</sub> 1485	V <sub>C</sub> 139, 142 A 1405	V <sub>C</sub> 143, 150 B 1465	V <sub>C</sub> 146, 137 C 1415	10 <sup>-5</sup> 312, 297 10 <sup>-7</sup> 52, 53 n 3.25 x 10 <sup>8</sup>	V <sub>C</sub> 0, 0 N <sub>a</sub> <1.5 x 10 <sup>2</sup> R > Log 5	
<i>S. Poona</i> NCTC 4840	V <sub>C</sub> 110, 109 N <sub>v</sub> 1095	V <sub>C</sub> 99, 106 A 1025	V <sub>C</sub> 100, 105 B 1025	V <sub>C</sub> 100, 101 C 1005	10 <sup>-5</sup> 259, 270 10 <sup>-7</sup> 26, 32 n 2.67 x 10 <sup>8</sup>	V <sub>C</sub> 0, 0 N <sub>a</sub> <1.5 x 10 <sup>2</sup> R > Log 5	

**Additional testing on sample S0702001:** BSEN 1276 versus *Clostridium difficile*

**Test date:** 06 March 2007

Organism	Validation Test				Bacterial Test Suspension (cfu/ml)	Test Procedure at Working Concentration	
	Bacterial Suspension	Experimental Conditions	Neutraliser Toxicity	Dilution Neutralisation		V <sub>C</sub>	N <sub>a</sub>
<i>C. difficile</i> ATCC 9689	V <sub>C</sub> 132, 135 N <sub>v</sub> 1335	V <sub>C</sub> 138, 136 A 1370	V <sub>C</sub> 135, 130 B 1325	V <sub>C</sub> 140, 139 C 1395	10 <sup>-5</sup> 312, 292 10 <sup>-7</sup> 43, 51 n 3.17 x 10 <sup>8</sup>	V <sub>C</sub> 0, 0 N <sub>a</sub> <1.5 x 10 <sup>2</sup> R > Log 5	

*L. Reed* 19 Mar 2007

**Further additional testing on sample S0702001: BSEN 1276 versus *Esterichia coli*, *Klebsiella pneumoniae* and *Listeria monocytogenes*.**

**Test date:** 13 March 2007

Organism	Validation Test				Bacterial Test Suspension (cfu/ml)	Test Procedure at Working Concentration
	Bacterial Suspension	Experimental Conditions	Neutraliser Toxicity	Dilution Neutralisation		
<i>E. coli</i> ATCC 8739	V <sub>C</sub> 85, 88 N <sub>V</sub> 865	V <sub>C</sub> 82, 83 A 825	V <sub>C</sub> 79, 81 B 800	V <sub>C</sub> 85, 84 C 845	10 <sup>-6</sup> 278, 277 10 <sup>-7</sup> 30, 29 n 2.79 x 10 <sup>8</sup>	V <sub>C</sub> 0, 0 N <sub>a</sub> <1.5 x 10 <sup>2</sup> R > Log 5
<i>K.pneumoniae</i> ATCC 13883	V <sub>C</sub> 60, 59 N <sub>V</sub> 595	V <sub>C</sub> 57, 59 A 580	V <sub>C</sub> 61, 57 B 590	V <sub>C</sub> 55, 59 C 570	10 <sup>-6</sup> 320, 311 10 <sup>-7</sup> 42, 45 n 3.26 x 10 <sup>8</sup>	V <sub>C</sub> 0, 0 N <sub>a</sub> <1.5 x 10 <sup>2</sup> R > Log 5
<i>L. monocytogenes</i> ATCC 35152	V <sub>C</sub> 72, 69 N <sub>V</sub> 705	V <sub>C</sub> 68, 65 A 665	V <sub>C</sub> 70, 67 B 685	V <sub>C</sub> 71, 76 C 735	10 <sup>-6</sup> 111, 119 10 <sup>-7</sup> 15, 16 n 1.19 x 10 <sup>8</sup>	V <sub>C</sub> 0, 0 N <sub>a</sub> <1.5 x 10 <sup>2</sup> R > Log 5

N = Neutralisation method      V<sub>C</sub> Viable Counts      R = Log Reduction

Pass Criteria : BSEN 1276: >Log 5 (1.0 x 10<sup>5</sup>)

Validation Criteria: Meet the requirements of the British Standard.

**Conclusion:** BSEN 1276: A greater than Log 5 reduction was obtained for MRSA, *Salmonella Poona*, *Clostridium difficile*, *Esterichia coli*, *Klebsiella pneumoniae* and *Listeria monocytogenes* after 5 minutes with Germ Warfare Surface Cleaner.

**Note:** The version 2 Certificate of Analysis has been issued to include results of further BSEN 1276 testing of the Germ Warfare Surface Cleaner sample versus *E. coli*, *K. pneumoniae* and *L. monocytogenes*.

  
 \_\_\_\_\_  
 KAREN STEED  
 Quality Assurance Manager

DATE: 19 March 2007