

# Laboratory Report

Client:	Freudenberg Haushaltsprodukte KG, Technical Centre Europe Bau 149 Hoehnerweg 2-4, 69469 Weinheim Herr Jörg Dunkel			
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Report writing:	U. Stephan		Page 1 of 2	

## Sample

Cloth: HygienePlus Mop (internal description: white with grey isles, back side grey), washed 5 times at 60°C (The sample was sent by the customer)

## Analyses

Microbiological examination of products

Evaluation of the capability of the cloth HygienePlus Mop (internal description: white with grey isles, back side grey), washed 5 times at 60°C to reduce bacteria on floor surfaces

## 1. Method(s) and material

The present study is based on EN 1174-2, DIN EN ISO 846, method C the customer's instructions and BMA-Laboratory reports of AU120425-05. The test was performed in a clean bench.

Bacteria test strain: Pseudomonas aeruginosa (DSM-Nr. 288)

Neutral cleaner: Tana Green care Neutral-Reiniger 04631 (TANA Chemie GmbH, Mainz, Germany)

Test surface: PVC floor covering, non structured (89 cm x 27 cm), disinfected; subdivided into 39 sample squares (9 cm x 7 cm)

Samples 3.1 to 3.3: Negative control after disinfection, samples 3.4 to 3.9: Positive control after bacteria application, samples 3.10 to 3.39: treated sample squares after bacteria application and cleaning with the test cloth.

# Applied bacteria suspension

5 ml of P. aeruginosa suspension (5,5 x 1018 cfu (colony forming unit); calculated amount per test sample (9 cm x 7 cm): 1,5 x 1017.

# Eluation and determination of bacteria from the sample squares

Samples were incubated in 15 ml 0,9% NaCl solution in a falcon tube and shaked 20 min end to end. The bacteria concentration of the suspension was analysed using the spread plate method (100 µl plating volume of dilution series) and/or the filtration method for samples with expected high or low bacteria contamination respectively. The agar plates were cultivated 5 days at 30°C.

## Cleaning procedure

The cloth was moistened by spraying 90 ml 1% neutral cleaner in water. Then it was fixed to the cleaning device, wiped once across the test surface by moving it in form of an 8 with a homogenous pressure at a speed of approximately 5 cm/s based on instrutions of the customer.

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Anschrift: BMA-Labor GbR Technologiezentrum Ruhr Universitätsstraße 142 D-44799 Bochum

Kommunikation: Tel.: 02 34 / 97830 - 0 02 34 / 97830 - 29 Mail: info@bma-labor.de http://www.bma-labor.de

Fax:

Gesellschafter: Dr. rer. nat. Ute Stephan Dr. rer. nat. Klaus Klus USt-IdNr ·DF202600482

Postbank Frankfurt BLZ 500 100 60 Kto.Nr.: 117 640 607 IBAN:DE76500100600117640607 SWIFT/BIC : PBNKDEFF

# 2. Results

2.1 Amount of aerobic mesophilic bacteria after disinfection

The results of the measurements and analyses exclusively refer to the examined sample(s).

			Mean concentration of mesophilic bacteria	
Sample / Sample identification	Sample No.	Sample description	Sample square (63 cm <sup>2</sup> ) [CFU/15 ml]	[CFU/m <sup>2</sup> ]
Control	2422	Negative control after	(a)	0
120809-09/3	3.1-3.3	disinfection	0 (0)	U

<sup>(a)</sup> Detection limit filtration: 1 cfu/15 ml

<sup>(b)</sup> Detection limit spread plate: 150 cfu/15 ml

# 2.2 Amount of Pseudomonas aeruginosa before and after cleaning

The results of the measurements and analyses exclusively refer to the examined sample(s).

			Mean concentration of P. aeruginosa	
Sample / Sample identification	Sample No.	Sample description	Sample square (63 cm <sup>2</sup> ) [CFU/15 ml]	[CFU/m <sup>2</sup> ]
Cloth: <b>HygienePlus Mop</b> (internal description: white with grey isles, back side grey) 120809-09/3	3.4-3.9	Positive control after bacteria application	8,1 x 10 <sup>8 (b)</sup>	2,2 x 10 <sup>11</sup>
	3.10-3.39	Treated sample squares after bacteria application and cleaning with the test cloth	3,2 x 10 <sup>4</sup> (a)/(b)	5,1 x 10 <sup>6</sup>
		Reduction [%]	99,996	

<sup>(a)</sup> Detection limit filtration: 1 cfu/15 ml

<sup>(b)</sup> Detection limit spread plate: 150 cfu/15 ml

Up Stephan

Dr. Ute Stephan Technical Manager

S. Putz

Stephanie Putz QM & Analysis