

SGZ Nussbaumüller GmbH
A-4493 Wolfers, Leopold-Werndl-Str. 3
Tel.: 07253 / 88 060, fax: 07253 / 8638-14
Internet: www.kurzentrums.at
E-mail: office@kurszentrum.at

OÖ Gesundheits- und Spitals AG
Gmunden hospital

Miller von Aichholzstrasse 49
A-4810 Gmunden

Wolfers, 15/11/2010

2010 / 115

Client:

OÖ Gesundheits- und Spitals AG
Gmunden hospital
Head chef Mr. Reitingner

Miller von Aichholzstrasse 49
A-4810 Gmunden

Author of the expert opinion:

Erich Nussbaumüller
Chartered expert in the trade, German Research Foundation-registered at Steyr district court under field 81.40.

Assignment:

Assessment of the depot effect if the Bacoban disinfection product is used for cleaning as per cleaning schedule and disinfection plan. Comparison to other areas with normal cleaning using the

previous active ingredients. Assessment of the visual cleaning quality. Assessment of the hygienic and technical quality by way of a bioluminescence process.

Active ingredient and product:

The Bacoban WB disinfectant used for the series of tests is approved for healthcare facilities and kitchens. The water-based disinfectant cleans and disinfects. The performance is in two stage based on the cloth change principle. The training for the performance is provided by Mr. Markus Kaiser as sole agent in Austria. The instructions about the risks and evaluation are no different from other disinfectants.

pH value: 5.3

pH value of 1% solution: 7.0

The test series was performed with a 1.5 % solution and soaking time of 15 minutes.

(see attached safety data sheet and technical data sheet)

Control persons for the series of tests

Ms. Hasic Zemira, Gmunden hospital, cleaning specialist for monuments, facades and buildings, was commissioned with the quality control by the head chef.

Mr. Erich Nussbaumüller from SGZ Nussbaumüller consultancy office

Mr. Markus Kaiser as importer of Bacoban products in Austria

Place:

The hospital kitchen in Gmunden was selected for preparing the expert opinion. The kitchen complies with the food hygiene regulation LMHGv and the guidelines for large kitchens and healthcare facilities.

Measuring equipment

The consulted expert and in-house quality control both used the same Lumitester PD-20/LuciPac Pen measuring equipment. The sterile swabs are within the permitted expiry time and unopened. Storage takes place within a temperature range of 2 – 8 degrees. The measurement was performed by means of swabbing a 10 cm² area.

Training

To ensure consistent measuring methods, Ms. Hasic Zemira was comprehensively trained in kitchen hygiene specifically for measuring methods.

Measurements and initial examination:

The external measurements were performed unannounced during production. The external measurements were also documented with pictures. The in-house measurements were ordered by Mr. Markus Kaiser or Mr. Reitingner as head chef and performed by Ms. Hasic. The results were entered in the local hygiene folder.

Timeframe:

The first measurement was performed on 27/11/2009 and the final inspection and certification measurement on 11/11/2010. The analytical figures are based on 93 measurements.

Limits for measurement with PD-20/LuciPac Pen

The limits were defined in cooperation with the kitchen management, result from other kitchen projects and are coordinated with the experiences of the laboratory equipment's manufacturer. The average annual value includes the entire test period in the following calculation formula: **Total particles : measurements**

- Score: A = very good
B = good
C = average
D = deficient
E = limit violation prohibited

No D, E categories could be reached in the assessments for the surveyed areas.

Area	Limit	Average annual value		
		A	B	C
Diet kitchen				
Floor	600	9	■	
Cold store	80	28		■
Wall tiles	150	3	■	
Worktop	100	5	■	
Fridge	80	8	■	
Cauldron drain	100	3	■	
Hand blender	100	8	■	
Knives	100	2	■	
			■	
Main kitchen				
Combination steamer handles	150	123		■
Tiles	150	0	■	
Tilting frying pans	150	0.5	■	

Hand washbasin	200	1	■		
Worktop	100	4	■		
Floor	200	5	■		
Cauldron	150	1	■		
Base cabinets	180	12	■		
Waste bins	300	7	■		
Cold kitchen					
Sausage machine	150	2.5	■		
Worktop	100	5	■		
Tiles	150	1	■		
Floor drain	550	2	■		
Chopping boards	150	1	■		
Floor	500	2.50	■		
Dessert preparation					
Cream machine	100	17.5		■	
Scales	150	3.75	■		
Worktops	100	6.2	■		
Sink	200	9	■		
Mixer	150	9	■		
Vegetable preparation					
Worktops	100	2	■		
Chopping boards	150	5	■		
Sinks	200	1	■		
Meat preparation					
Floor	200	4	■		
Light switch	150	3.5	■		
Sausage machine	150	3	■		
Doors	150	4	■		
Hand washbasin	200	7	■		
Cold store	80	3	■		
Knives	100	16.5	■		
Chopping boards	150	0		■	
Worktop	100	2.75	■		
Poultry place	100	1.45	■		

Opinion

An observation period from 27/11/2009 to 11/11/2010 was selected to form an opinion. The measurements were performed by 3 different persons during and after the production in the presence of at least one supervisor from the hospital. The results achieved by the external and in-house measurements significantly exceed the average hygiene quality of comparable kitchens. From the perspective of the expert, the very high quality in all kitchen areas has been achieved by virtue of several factors. Essential factors for the uncommonly high, sustained and consistent quality in the surveyed large kitchen include the highly professional performance of the cleaning and exact compliance with the cleaning schedules in conjunction with the Bacoban product used for cleaning and disinfection. The very difficult hygiene gap in the production chain could be closed very successfully in the pilot test, also during production.

In addition to the chemical optimization, a seamless colour concept has been implemented in connection with the mechanical cleaning and wet cleaning as per cloth change principle.

Sustainable success and an improved surface hygiene could be unambiguously demonstrated in the test run. In adjoining areas that were cleaned conventionally, the measurements were unable to achieve the same success as in the kitchen. The cleaning equipment, detergents and the disinfectant are ideally coordinated and prescribed in the cleaning schedule with the necessary frequency.

Summary:

The cleaning and hygiene quality is above average in the visual assessment as well as the testing with measurements. Cleaning with Bacoban is also recommended for the adjoining areas.

The surveyed cleaning procedure in combination with the selected detergents and disinfectants and cleaning intervals is rated as particularly hygienic with a very great sustainability. The lasting long-term protection of the disinfectant could be demonstrated in the measurements. Possible hygiene gaps could be successfully closed this way. We also recommend the reviewed disinfection procedure for cleaning kitchens with inadequate structural separation.

As a further optimization, the cleaning intervals for the door handles at the appliances are to be stepped up.

SGZ Nussbaumüller GmbH

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Erich Nussbaumüller
Court-approved expert

