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Project name:

**Effectiveness check of the HydroFogg® disinfection system by
DETECTAIR**

Price offer:

SK-FP-23-194 DETECTAIR (10.12.2023)

Email order:

pavlovic@detectair.sk (10.12.2023)

CUSTOMER ID:

Customer name:

DETECTAIR, s.r.o.

Identification number:

45718768

Registered seat:

Trojičné nám. 5-9 821 06 Bratislava

Management body:

Mgr. Pavol Pavlovič

CONTRACTOR ID:

Názov:

ALS SK, s.r.o.

IČO, DIČ:

36 629 324, SK 2021871478

Sídlo:

Kirejevská 1678, 979 01 Rimavská Sobota

Štatutárny zástupca:

Ing. Ľuboš Fraňo, general manager

Zodpovedný riešiteľ:

Ing. Ľuboš Fraňo

Date of elaboration: 24.1.2024

Report submitter: Ing. Ľuboš Fraňo

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Kirejevská 1678
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IČ DPH: SK2021871478



1.0 Task assignment:

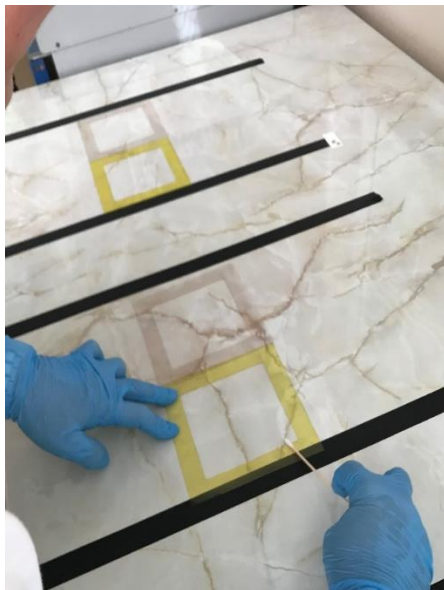
Monitoring the disinfection efficiency of the growth of microorganisms *Escherichia coli*, *Candida albicans*, *Enterococcus faecalis*, *Salmonella enterica* spp. *enterica* serovar *Enteritidis* and *Listeria monocytogenes* after using Sanosil S010 disinfectant, which was dispersed into the space using the patented HydroFogg® system.

2.0 Design of experiment:

For the study were used strains of *Escherichia coli* (WDCM00013; CCM3954), *Enterococcus faecalis* (WDCM00087; CCM4224), *Candida albicans* (WDCM00054; CCM8215), *Salmonella enterica* ssp. *Enterica* serovar *Enteritidis* (WDCM00030; CCM7189), *Listeria monocytogenes* (WDCM00109; CCM5576), which were diluted according to the McFarland scale. We prepared a mixture of microorganisms (*Escherichia coli*, *Enterococcus faecalis*, *Candida albicans*) in concentrations of 1.0E+08; 1.0E+07; 1.0E+06; 1.0E+05; 1.0E+04; 1.0E+03 CFU/ml. In case of *Salmonella enterica* ssp. *Enterica* serovar *Enteritidis* and *Listeria monocytogenes* were used concentrations of 1.0E+08 CFU/ml.

Swabbing was carried out according to STN EN ISO 18593 as follows:

A defined amount of the prepared concentrations was applied to a flat surface, where a sterile template with dimensions of 10x10 cm was placed and a sterile swab soaked into a diluting solution was used to swab the surface (in two directions facing each other at right angles, then wavy inside the template) (Pic.1). The basic solution was prepared by placing a tampon in a test tube with a dilution solution and shaking it with a laboratory Vortex shaker (Pic.2). When using high concentrations of microorganisms, it was necessary to dilute the basic solution.



Pic.1 Swabbing from template



Pic.2 Laboratory shaker Vortex



The mobile disinfection unit HydroFogg® by DETECTAIR was used to disinfect the contaminated surfaces (a certified device producing dry fog aerosol intended for whole-space disinfection). The device automatically converts Sanosil S010 certified disinfectant into ionized particles using certified nozzles and a high-pressure system to achieve the perfect droplet size (11.0µm) (Pic.3, Pic.4). The application time was 180 seconds and the consumption of Sanosil S010 disinfectant was 10ml/m3. The exposure time was 15 min.



Pic.3 Disinfection unit HydroFogg®



Pic.4 HydroFogg® during operation

3.0 Methods and procedures

Samples were processed according to the following standards:

Total viable count: STN EN ISO 4833-1, used culture medium: Plate Count Agar
Incubation: 30 ± 1 °C, 72 ± 3 hrs

Escherichia coli: STN ISO 16649-2, used culture medium: TBX Agar
Incubation: 44 ± 1 °C, 18-24 hrs

Yeast: ISO 7954, used culture medium: Yeast extract-dextrose-chloramphenicol agar
Incubation: 25 ± 1 °C, 3-5 days

We pipetted the samples (1 ml) into Petri dishes and filled them with the appropriate culture medium. The prepared samples were incubated at the given temperature according to the above standards.



Salmonella: STN EN ISO 6579-1 + set Solus Salmonella.

- enrichment in a non-selective liquid medium (buffered peptone water: incubation: 34–38 °C, 18 hrs)
- enrichment in a selective media (RVS: incubation: 41.5 °C, 24 hrs; MKTTn: incubation: 37 °C, 24 hrs)
- detection by the DYNEX DS2 automated system using the Solus Salmonella commercial set.

The Dynex DS2 is a computer-controlled device that fully automates sample and reagent addition, incubation, washing and detection. It works on the principle of ELISA (In the first step, specific antibodies against the flagellar antigens of the Salmonella bacterium are immobilized on the solid phase. The added sample contains given antigens that interact with the antibody. After the removal of unbound components, the enzyme-labelled antibody is applied. An enzyme reaction is used for detection, i.e., a coloured product is formed).

- isolation of colonies on solid selective media (XLD: incubation: 37 °C, 24 hrs; BGA: incubation: 37 °C, 24 hrs)
- confirmation (biochemical, serological)

Listeria: STN EN ISO 11290-1 + set Solus Listeria.

- enrichment in non-selective liquid medium (half Fraser: incubation: 30 ± 1 °C, 22–26 hrs)
- enrichment in selective media (RELM: incubation: 30 ± 1 °C, 22–26 hrs)
- analysis on a DYNEX DS2 device
- isolation of colonies on solid selective media (ALOA: incubation: 37 °C, 24 hrs; KA: incubation: 37 °C, 24 hrs)
- confirmation (haemolysis test, carbohydrate utilisation, CAMP test)

4.0 Samples labelling:

RM2400206-001	Swab No.1 – before disinfection
RM2400206-002	Swab No.2 – before disinfection
RM2400206-003	Swab No.3 – before disinfection
RM2400206-004	Swab No.4 – before disinfection
RM2400206-005	Swab No.5 – before disinfection
RM2400206-006	Swab No.6 – before disinfection
RM2400207-001	Swab No.1 – after disinfection
RM2400207-002	Swab No.2 – after disinfection
RM2400207-003	Swab No.3 – after disinfection
RM2400207-004	Swab No.4 – after disinfection
RM2400207-005	Swab No.5 – after disinfection
RM2400207-006	Swab No.6 – after disinfection
RM2400209-001	Swab No.1 – before disinfection
RM2400209-002	Swab No.2 – before disinfection
RM2400210-001	Swab No.1 – after disinfection
RM2400210-002	Swab No.2 – after disinfection



5.0 Results:

The results of the designed experiment in Tab.1.

Table 1

Samples labelling	Cell Count Density	Before disinfection		Samples labelling	Cell Count Density	After disinfection	
		Analyte	CFU/cm ²			Analyte	CFU/cm ²
RM2400206-001	10 ⁸	TVC	1,2E+07	RM2400207-001	10 ⁸	TVC	7,0E+01
		E.Coli	9,0E+06			E.Coli	5,0E+01
		Yeast	4,0E+06			Yeast	0
RM2400206-002	10 ⁷	TVC	2,2E+06	RM2400207-002	10 ⁷	TVC	5,0E+01
		E.Coli	N/A			E.Coli	N/A
		Yeast	N/A			Yeast	N/A
RM2400206-003	10 ⁶	TVC	1,8E+05	RM2400207-003	10 ⁶	TVC	4,0E+01
		E.Coli	1,3E+05			E.Coli	1,0E+01
		Yeast	1,1E+04			Yeast	0
RM2400206-004	10 ⁵	TVC	1,9E+04	RM2400207-004	10 ⁵	TVC	0
		E.Coli	N/A			E.Coli	N/A
		Yeast	N/A			Yeast	N/A
RM2400206-005	10 ⁴	TVC	8,0E+03	RM2400207-005	10 ⁴	TVC	0
		E.Coli	N/A			E.Coli	N/A
		Yeast	N/A			Yeast	N/A
RM2400206-006	10 ³	TVC	1,4E+03	RM2400207-006	10 ³	TVC	0
		E.Coli	1,1E+03			E.Coli	0
		Yeast	6,0E+02			Yeast	0
RM2400209-001	10 ⁸	Salmonella	positive	RM2400210-001	10 ⁸	Salmonella	negative
RM2400209-002	10 ⁸	Listeria	positive	RM2400210-002	10 ⁸	Listeria	negative

6.0 Conclusion:

The experiment shows that the HydroFogg® disinfection unit with Sanosil S010 disinfectant with an exposure time of 15 minutes is **effective** when using pathogenic and non-pathogenic microorganisms with concentrations up to 1.0E+08 CFU/ml, which represents high contamination in the food, pharmaceutical, or healthcare industry normally unattainable.



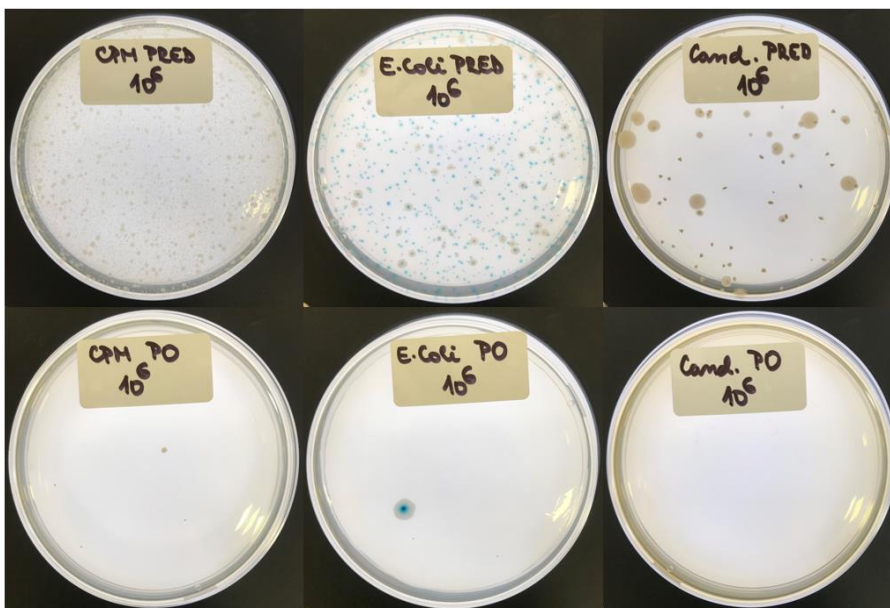
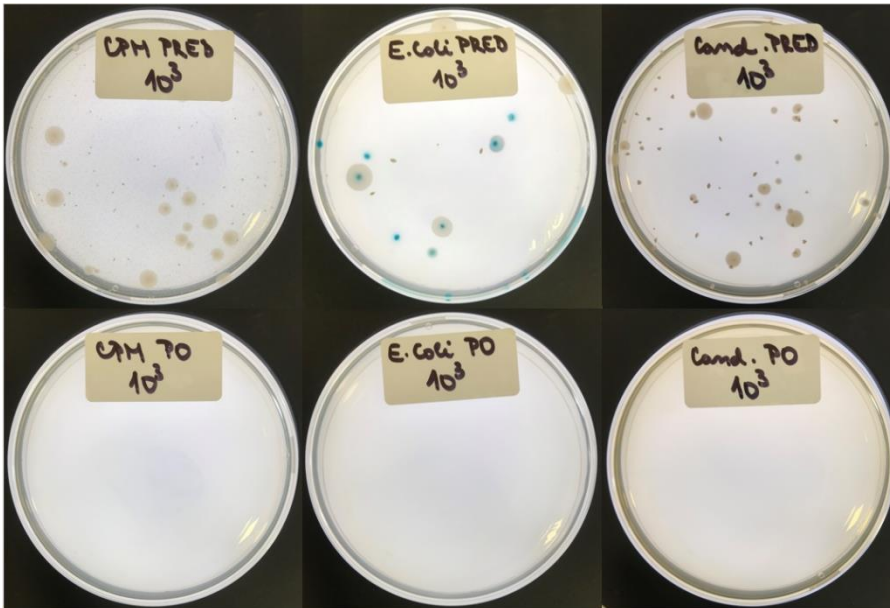
ANNEXES:

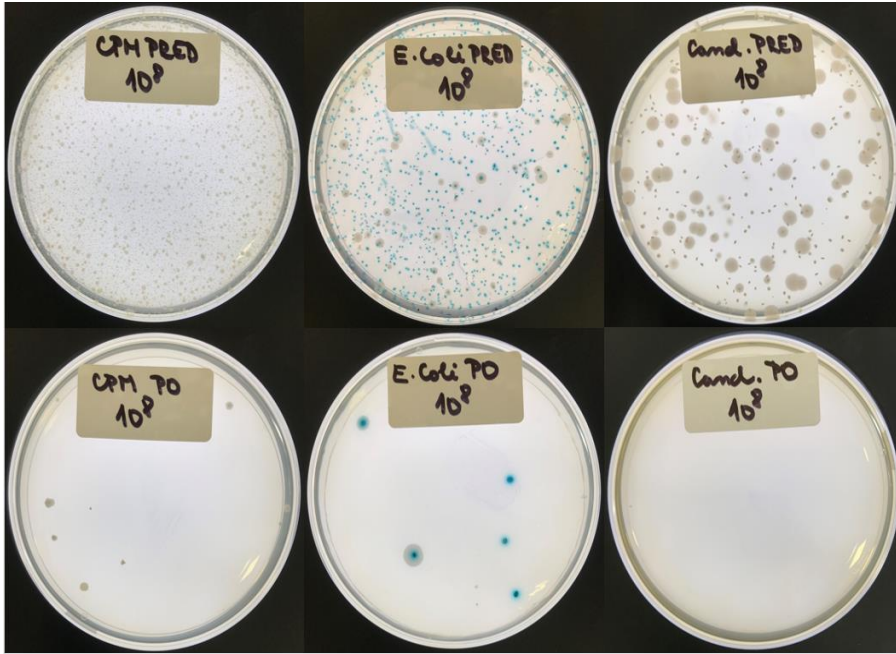
Annex I – Photo documentation

Annex II – Certificates of analyses



Annex 1 - Photo documentation







Annex 2 – Certificates of analyses



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Reg. No. 051/S-104

A/N/S - accredited/not accredited/subcontracted tests

CERTIFICATE OF ANALYSIS

Work Order	: RM2400206	Page	: 1 of 3
Laboratory	: ALS SK, s.r.o.	Client	: DETECTAIR, s.r.o.
Contact	: Client Service	Contact	: PhDr. Pavol Pavlovič MBA.
Address	: Kirejevská 1678 979 01 Rimavská Sobota Slovakia	Address	: Trojičné nám. 5-9 821 06 Bratislava Slovakia
E-mail	: marketing.rs@alsglobal.com	E-mail	: pavlovic@detectair.sk
Telephone	: +421475811617	Telephone	: ----
Project	: ----	Date Samples Received	: 10-Jan-2024
Order number	: ----	Issue date	: 24-Jan-2024
C-O-C number	: ----	No. of samples received	: 6
Sampler	: Gabriela Pásztorová	No. of samples analysed	: 6
Site	: Simulation laboratory No. 310	Date of test	: 10-Jan-2024 - 23-Jan-2024
Quote number	: ----	Receiving Temperature	: ----

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

When no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component.

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Laboratory is accredited by SNAS, that is signatory to the ILAC MRA for accreditation of Testing Laboratories.

The sampling was carried out by the employee of the TL for the applicant, the scope of the examination according to the applicant's request.

Parameter Total Viable Count consists of strains: *Candida albicans*, *Enterococcus faecalis* and *Escherichia coli*.

Parameter Yeasts consists of strain: *Candida albicans*.

Sample Information

No. of samples received : 6

Date Samples Received

No. of samples analysed : 6

10-Jan-2024 13:45

Sub-Matrix : SWAB

Laboratory sample ID	Client sample ID	Analysis start date
RM2400206-001	Swab No.1 – before disinfection	10-Jan-2024
RM2400206-002	Swab No.2 – before disinfection	10-Jan-2024
RM2400206-003	Swab No.3 – before disinfection	10-Jan-2024
RM2400206-004	Swab No.4 – before disinfection	10-Jan-2024
RM2400206-005	Swab No.5 – before disinfection	10-Jan-2024
RM2400206-006	Swab No.6 – before disinfection	10-Jan-2024

Analytical Results

Sub-Matrix: SWAB

Laboratory sample ID

RM2400206001

Analysis start date

2024-01-10 00:00

Parameter	Method	LOR	Unit	Result	AK
Microbiological Parameters					
<i>Escherichia coli</i>	B-EC5	-	CFU/cm2	9E+06	A
Total Viable Count	B-TVC5	-	CFU/cm2	1.2E+07	A
Yeasts	B-YE5	-	CFU/cm2	4E+06	A



Sub-Matrix: SWAB		Laboratory sample ID		RM2400206002		
		Analysis start date		2024-01-10 00:00		
Parameter	Method	LOR	Unit	Result	AK	
Microbiological Parameters						
Total Viable Count	B-TVC5	-	CFU/cm2	2.2E+06	A	

Sub-Matrix: SWAB		Laboratory sample ID		RM2400206003		
		Analysis start date		2024-01-10 00:00		
Parameter	Method	LOR	Unit	Result	AK	
Microbiological Parameters						
Escherichia coli	B-EC5	-	CFU/cm2	1.3E+05	A	
Total Viable Count	B-TVC5	-	CFU/cm2	1.8E+05	A	
Yeasts	B-YE5	-	CFU/cm2	1.1E+04	A	

Sub-Matrix: SWAB		Laboratory sample ID		RM2400206004		
		Analysis start date		2024-01-10 00:00		
Parameter	Method	LOR	Unit	Result	AK	
Microbiological Parameters						
Total Viable Count	B-TVC5	-	CFU/cm2	1.9E+04	A	

Sub-Matrix: SWAB		Laboratory sample ID		RM2400206005		
		Analysis start date		2024-01-10 00:00		
Parameter	Method	LOR	Unit	Result	AK	
Microbiological Parameters						
Total Viable Count	B-TVC5	-	CFU/cm2	8E+03	A	

Sub-Matrix: SWAB		Laboratory sample ID		RM2400206006		
		Analysis start date		2024-01-10 00:00		
Parameter	Method	LOR	Unit	Result	AK	
Microbiological Parameters						
Escherichia coli	B-EC5	-	CFU/cm2	1.1E+03	A	
Total Viable Count	B-TVC5	-	CFU/cm2	1.4E+03	A	
Yeasts	B-YE5	-	CFU/cm2	6E+02	A	

Brief Method Summaries

Analytical Methods	Method Descriptions
B-EC5	ŠPP MB-M-16 Carcass sampling, detection and enumeration of culturable microorganisms of the surfaces in the food chain environment
B-TVC5	ŠPP MB-M-16 Carcass sampling, detection and enumeration of culturable microorganisms of the surfaces in the food chain environment
B-YE5	ŠPP MB-M-16 Carcass sampling, detection and enumeration of culturable microorganisms of the surfaces in the food chain environment

Key: LOR = Limit of reporting represents the standard LOR for the respective parameters in each method. Note that limits of reporting may be affected if, e.g. additional dilution was required because of matrix effects, or the sample quantity was limited.; MU = Measurement Uncertainty; ČSN = Czech Technical Standard; STN = Slovak Technical Standard; TL = Testing laboratory; SM = Directive; ŠPP, SOP = Standard Operating Procedure; AK = accreditation key; A = accredited; N = not accredited; SA = subcontracted accredited; SN = subcontracted not accredited; CFU = Colony forming units

The uncertainty is given as extended uncertainty (according to the definition in "Guide to the Expression of Measurement", JCGM 100:2008 Corrected version 2010) calculated with a coverage factor of 2, which give level of approximately 95%. Measurement of uncertainty is reported only for detected substances with levels above the reporting limits.

The uncertainty from subcontractors is often given as extended uncertainty calculated with a coverage factor of 2. Contact the laboratory for further information.



Responsible for accuracy



Approved by:


Ľuboš Fraňo
General Manager



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A/N/S - accredited/not accredited/subcontracted tests

CERTIFICATE OF ANALYSIS

Work Order	: RM2400207	Page	: 1 of 3
Laboratory	: ALS SK, s.r.o.	Client	: DETECTAIR, s.r.o.
Contact	: Client Service	Contact	: PhDr. Pavol Pavlovič MBA.
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E-mail	: marketing.rs@alsglobal.com	E-mail	: pavlovic@detectair.sk
Telephone	: +421475811617	Telephone	: ----
Project	: ----	Date Samples Received	: 10-Jan-2024
Order number	: ----	Issue date	: 24-Jan-2024
C-O-C number	: ----	No. of samples received	: 6
Sampler	: Gabriela Pásztorová	No. of samples analysed	: 6
Site	: Simulation laboratory No. 310	Date of test	: 10-Jan-2024 - 23-Jan-2024
Quote number	: ----	Receiving Temperature	: ----

General Comments

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Parameter Total Viable Count consists of strains: *Candida albicans*, *Enterococcus faecalis* and *Escherichia coli*.

Parameter Yeasts consists of strain: *Candida albicans*.

Sample Information

No. of samples received : 6

Date Samples Received

No. of samples analysed : 6

10-Jan-2024 13:48

Sub-Matrix : SWAB

Laboratory sample ID	Client sample ID	Analysis start date
RM2400207-001	Swab No.1 – after disinfection	10-Jan-2024
RM2400207-002	Swab No.2 – after disinfection	10-Jan-2024
RM2400207-003	Swab No.3 – after disinfection	10-Jan-2024
RM2400207-004	Swab No.4 – after disinfection	10-Jan-2024
RM2400207-005	Swab No.5 – after disinfection	10-Jan-2024
RM2400207-006	Swab No.6 – after disinfection	10-Jan-2024

Analytical Results

Sub-Matrix: SWAB

Laboratory sample ID	RM2400207001
Analysis start date	2024-01-10 00:00

Parameter	Method	LOR	Unit	Result	AK
Microbiological Parameters					
<i>Escherichia coli</i>	B-EC5	-	CFU/cm2	5E+01	A
Total Viable Count	B-TVC5	-	CFU/cm2	7E+01	A
Yeasts	B-YE5	-	CFU/cm2	0	A



Sub-Matrix: SWAB		Laboratory sample ID		RM2400207002		
		Analysis start date		2024-01-10 00:00		
Parameter	Method	LOR	Unit	Result	AK	
Microbiological Parameters						
Total Viable Count	B-TVC5	-	CFU/cm2	5E+01	A	

Sub-Matrix: SWAB		Laboratory sample ID		RM2400207003		
		Analysis start date		2024-01-10 00:00		
Parameter	Method	LOR	Unit	Result	AK	
Microbiological Parameters						
Escherichia coli	B-EC5	-	CFU/cm2	1E+01	A	
Total Viable Count	B-TVC5	-	CFU/cm2	4E+01	A	
Yeasts	B-YE5	-	CFU/cm2	0	A	

Sub-Matrix: SWAB		Laboratory sample ID		RM2400207004		
		Analysis start date		2024-01-10 00:00		
Parameter	Method	LOR	Unit	Result	AK	
Microbiological Parameters						
Total Viable Count	B-TVC5	-	CFU/cm2	0	A	

Sub-Matrix: SWAB		Laboratory sample ID		RM2400207005		
		Analysis start date		2024-01-10 00:00		
Parameter	Method	LOR	Unit	Result	AK	
Microbiological Parameters						
Total Viable Count	B-TVC5	-	CFU/cm2	0	A	

Sub-Matrix: SWAB		Laboratory sample ID		RM2400207006		
		Analysis start date		2024-01-10 00:00		
Parameter	Method	LOR	Unit	Result	AK	
Microbiological Parameters						
Escherichia coli	B-EC5	-	CFU/cm2	0	A	
Total Viable Count	B-TVC5	-	CFU/cm2	0	A	
Yeasts	B-YE5	-	CFU/cm2	0	A	

Brief Method Summaries

Analytical Methods	Method Descriptions
B-EC5	ŠPP MB-M-16 Carcass sampling, detection and enumeration of culturable microorganisms of the surfaces in the food chain environment
B-TVC5	ŠPP MB-M-16 Carcass sampling, detection and enumeration of culturable microorganisms of the surfaces in the food chain environment
B-YE5	ŠPP MB-M-16 Carcass sampling, detection and enumeration of culturable microorganisms of the surfaces in the food chain environment

Key: LOR = Limit of reporting represents the standard LOR for the respective parameters in each method. Note that limits of reporting may be affected if, e.g. additional dilution was required because of matrix effects, or the sample quantity was limited.; MU = Measurement Uncertainty; ČSN = Czech Technical Standard; STN = Slovak Technical Standard; TL = Testing laboratory; SM = Directive; ŠPP, SOP = Standard Operating Procedure; AK = accreditation key; A = accredited; N = not accredited; SA = subcontracted accredited; SN = subcontracted not accredited; CFU = Colony forming units

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Approved by:


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Reg. No. 051/S-104

A/N/S - accredited/not accredited/subcontracted tests

CERTIFICATE OF ANALYSIS

Work Order	: RM2400209	Page	: 1 of 2
Laboratory	: ALS SK, s.r.o.	Client	: DETECTAIR, s.r.o.
Contact	: Client Service	Contact	: PhDr. Pavol Pavlovič MBA.
Address	: Kirejevská 1678 979 01 Rimavská Sobota Slovakia	Address	: Trojičné nám. 5-9 821 06 Bratislava Slovakia
E-mail	: marketing.rs@alsglobal.com	E-mail	: pavlovic@detectair.sk
Telephone	: +421475811617	Telephone	: ----
Project	: ----	Date Samples Received	: 10-Jan-2024
Order number	: ----	Issue date	: 24-Jan-2024
C-O-C number	: ----	No. of samples received	: 2
Sampler	: Gabriela Pásztorová	No. of samples analysed	: 2
Site	: Simulation laboratory No. 310	Date of test	: 10-Jan-2024 - 12-Jan-2024
Quote number	: ----	Receiving Temperature	: ----

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

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Parameter *Salmonella sp.* consists of strain: *Salmonella enterica spp. enterica serovar Enteritidis*.

Sample Information

No. of samples received : 2

Date Samples Received

No. of samples analysed : 2

10-Jan-2024 13:51

Sub-Matrix : SWAB

Laboratory sample ID	Client sample ID	Analysis start date
RM2400209-001	Swab No.1 – before disinfection	10-Jan-2024
RM2400209-002	Swab No.2 – before disinfection	10-Jan-2024

Analytical Results

Sub-Matrix: SWAB

Laboratory sample ID

RM2400209001

Analysis start date

2024-01-10 00:00

Parameter	Method	LOR	Unit	Result	AK
Microbiological Parameters					
<i>Salmonella sp.</i>	B-SALD-E48	-	-	Positive	A

Sub-Matrix: SWAB

Laboratory sample ID

RM2400209002

Analysis start date

2024-01-10 00:00

Parameter	Method	LOR	Unit	Result	AK
Microbiological Parameters					
<i>Listeria sp. Listeria monocytogenes</i>	B-LSPPD-E48	-	-	Positive	A



Brief Method Summaries

Analytical Methods	Method Descriptions
B-LSPPD-E48	ŠPP MB-M-16 Carcass sampling, detection and enumeration of culturable microorganisms of the surfaces in the food chain environment
B-SALD-E48	ŠPP MB-M-16 Carcass sampling, detection and enumeration of culturable microorganisms of the surfaces in the food chain environment

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Luboš Fraňo
General Manager



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A/N/S - accredited/not accredited/subcontracted tests

CERTIFICATE OF ANALYSIS

Work Order	: RM2400210	Page	: 1 of 2
Laboratory	: ALS SK, s.r.o.	Client	: DETECTAIR, s.r.o.
Contact	: Client Service	Contact	: PhDr. Pavol Pavlovič MBA.
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E-mail	: marketing.rs@alsglobal.com	E-mail	: pavlovic@detectair.sk
Telephone	: +421475811617	Telephone	: ----
Project	: ----	Date Samples Received	: 10-Jan-2024
Order number	: ----	Issue date	: 24-Jan-2024
C-O-C number	: ----	No. of samples received	: 2
Sampler	: Gabriela Pásztorová	No. of samples analysed	: 2
Site	: Simulation laboratory No. 310	Date of test	: 10-Jan-2024 - 12-Jan-2024
Quote number	: ----	Receiving Temperature	: ----

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

When no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component.

This report shall not be reproduced except in full, without prior written approval from the laboratory.

The laboratory declares that the test results relate only to the items tested and do not substitute any other documents.

Laboratory is accredited by SNAS, that is signatory to the ILAC MRA for accreditation of Testing Laboratories.

The sampling was carried out by the employee of the TL for the applicant, the scope of the examination according to the applicant's request.

Parameter *Salmonella sp.* consists of strain: *Salmonella enterica spp. enterica serovar Enteritidis.*

Sample Information

No. of samples received : 2

Date Samples Received

No. of samples analysed : 2

10-Jan-2024 13:52

Sub-Matrix : SWAB

Laboratory sample ID	Client sample ID	Analysis start date
RM2400210-001	Swab No.1 - after disinfection	10-Jan-2024
RM2400210-002	Swab No.2 - after disinfection	10-Jan-2024

Analytical Results

Sub-Matrix: SWAB

Laboratory sample ID	RM2400210001
Analysis start date	2024-01-10 00:00

Parameter	Method	LOR	Unit	Result	AK
Microbiological Parameters					
<i>Salmonella sp.</i>	B-SALD-E48	-	-	Negative	A

Sub-Matrix: SWAB

Laboratory sample ID	RM2400210002
Analysis start date	2024-01-10 00:00

Parameter	Method	LOR	Unit	Result	AK
Microbiological Parameters					
<i>Listeria sp. Listeria monocytogenes</i>	B-LSPPD-E48	-	-	Negative	A



Brief Method Summaries

Analytical Methods	Method Descriptions
B-LSPPD-E48	ŠPP MB-M-16 Carcass sampling, detection and enumeration of culturable microorganisms of the surfaces in the food chain environment
B-SALD-E48	ŠPP MB-M-16 Carcass sampling, detection and enumeration of culturable microorganisms of the surfaces in the food chain environment

Key: LOR = Limit of reporting represents the standard LOR for the respective parameters in each method. Note that limits of reporting may be affected if, e.g. additional dilution was required because of matrix effects, or the sample quantity was limited.; **MU** = Measurement Uncertainty; **ČSN** = Czech Technical Standard; **STN** = Slovak Technical Standard; **TL** = Testing laboratory; **SM** = Directive; **ŠPP, SOP** = Standard Operating Procedure; **AK** = accreditation key; **A** = accredited; **N** = not accredited; **SA** = subcontracted accredited; **SN** = subcontracted not accredited; **CFU** = Colony forming units

The uncertainty is given as extended uncertainty (according to the definition in "Guide to the Expression of Measurement", JCGM 100:2008 Corrected version 2010) calculated with a coverage factor of 2, which give level of approximately 95%. Measurement of uncertainty is reported only for detected substances with levels above the reporting limits.

The uncertainty from subcontractors is often given as extended uncertainty calculated with a coverage factor of 2. Contact the laboratory for further information.

Responsible for accuracy



Approved by:


Luboš Fraňo
General Manager
