MICROBIOLOGICAL TESTING DEPARTMENT
OF NATIONAL PUBLIC HEALTH SURVEILLANCE LABORATORY
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MICROBIOLOGICAL TEST REPORT No. *MA 4561 (MA 11288 - MA 11289)/2020*

03 August 2020

Customer, address: ***MB "Pro for nano", Mokyklos str. 5-5, Vilnius, LT-08413***

Agreement *(mark X)* [X] there is no [ ] is date 20 ___ – ___ – ___ No ___ [E]

Phone: ***869473130*** E-mail: ***info@profornano.com gediminas.galinis@profornano.com*** Pickup Act-Order No: ***V 6876***

Date and time of delivering the samples and sample temperature (if required) ***2020-07-20, 11.50 h***

Information supplied by the customer:

Samples supplied (title of the sample, method of packing, amount of sample supplied (kg,l), producer, method, by which test sample is produced, batch size, production date, date of realization, time, other information supplied by the customer):

1. Surface disinfectant "Pro Nano Ag (silver nano)". Clean conditions, 20°C, contact time 5min, 7x100ml, MB "Pro for nano"

2. Surface disinfectant "Pro Nano Ag (silver nano)". Clean conditions, 20°C, contact time 5min, 15min, 7x100ml, MB "Pro for nano"

Place of the selecting the samples, Sampling report No: ***MB "Pro for nano" Mokyklos str. 5-5, Vilnius, LT-08413***
(object name and address)

Samples selected by: ***Gediminas Galinis***
(institution, division, position, name)

Date and time of sample selecting, sample temperature, identification No. of the document: ***2020-07-19, 10.00 h, No doc. of sampling: MA 4561***

Samples delivered by: ***Gediminas Galinis***
(institution, name)

Testing started on: ***2020-07-29***

Test results:

Sample name ***Surface disinfectant "Pro Nano Ag (silver nano)". Clean conditions, 20°C, contact time 5min***

Sample registry No.	Testing performed by the method	Searched microorganism	Test results
MA 11288	*LST EN 1276:2019*	*The evaluation of bactericidal activity of chemical disinfectants with E.coli*	*R>5, bactericidically active*
	LST EN 1276:2019	*The evaluation of bactericidal activity of chemical disinfectants with S.aureus*	*R>5, bactericidically active*

Sample name ***Surface disinfectant "Pro Nano Ag (silver nano)". Clean conditions, 20°C, contact time 5min, 15min***

Sample registry No.	Testing performed by the method	Searched microorganism	Test results
MA 11289	*LST EN 1650:2019*	*The evaluation of fungicidal activity of chemical disinfectants with A.brasiliensis*	*R>4, fungicidically active*

Supplementary data, remarks: ***Standart LST EN 1650:2019 is not accredited for 5 min, 20°C test conditions.***

Date of performing tests: ***2020-07-31***

Test performed by ***Microbiology specialist Irina Iljina***
(position, name and surname)

Approve: ***Deputy Head of Microbiological testing department Vitalija Prasmutienė***
(position, name and surname, signature)

Explanations:	1. R - Reduction of the count of microorganisms (reduction), expressed by log.
	2. Test results related only to the particular samples tested.
	3. N -not accredited method.
	4. Test report or parts thereof (annexes) can't be reproduced without the consent of the head of division and/or subdivision.
	5. Handing over of the test report [E]-by e-mail

TEST RESULTS (bactericidal suspension test)

Experimental conditions:
Name of the product: Surface disinfectant " Pro Nano Ag (silver nano) "
Appearance of the product: clear liquid.
Method: membrane filtration.
Rinsing liquid: distilled water.
Interfering substance: clean conditions - bovine albumin 0,3 g/l.
Test temperature: 20°C
Diluent used for product test solutions: ready-to use-product.
Test suspension appearance: clear, without sediment.

Test organism: ***Escherichia coli ATCC 10536***

VALIDATION AND CONTROLS

Validation suspension (Nvo)	Experimental conditions control (A)	Neutralizer or filtration control (B)	Method validation (C)
Vc1+Vc2 83	**Vc1+Vc2** 109	**Vc1+Vc2** 121	**Vc1+Vc2** 126
(38 + 45) $\bar{x}$ = 41,5	(52 + 57) $\bar{x}$ = 55	(63 + 58) $\bar{x}$ = 61	(59 + 67) $\bar{x}$ = 63
30 ≤ $\bar{x}$ **Nvo** ≤ 160 41,5	$\bar{x}$**A** ≥ 0,5 x $\bar{x}$ Nvo 21	$\bar{x}$**B** ≥ 0,5 x $\bar{x}$ Nvo 21	$\bar{x}$**C** ≥ 0,5 x $\bar{x}$ Nvo 20,8
[X] yes [ ] no	[X] yes [ ] no	[X] yes [ ] no	[X] yes [ ] no

TEST SUSPENSION AND TEST

N	Vc1	Vc2
10 $^{-6}$	170	167
10 $^{-7}$	11	12
Test suspension (N ir No)		

$\bar{x}_{wm}$ = 163,64 x 10^6 = 163636364 log **8,21**

N_o = N/10 = 16363636,4 **7,21**

7,17 ≤ **N_o** ≤ 7,70 [X] yes [ ] no

Conc. of the product	Vc1	Vc2	Na = $\bar{x}$ x 10	log Na	log R = log No - log Na (**logNo =7,21**)	Contact time
ready-to-use	< 14	< 14	< **140**	**2,15**	> **5,07**	5 min

Test organism: ***Staphylococcus aureus*** **ATCC 6538**

VALIDATION AND CONTROLS

Validation suspension (Nvo)	Experimental conditions control (A)	Neutralizer or filtration control (B)	Method validation (C)
Vc1+Vc2: 95 (44 + 51) $\bar{x}$ = 47,5	Vc1+Vc2: 103 (49 + 54) $\bar{x}$ = 52	Vc1+Vc2: 85 (37 + 48) $\bar{x}$ = 43	Vc1+Vc2: 109 (56 + 53) $\bar{x}$ = 55
30 ≤ $\bar{x}$ **Nvo** ≤ 160 47,5	$\bar{x}$**A** ≥ 0,5 x $\bar{x}$ Nvo 24	$\bar{x}$**B** ≥ 0,5 x $\bar{x}$ Nvo 24	$\bar{x}$**C** ≥ 0,5 x $\bar{x}$ Nvo 23,8
[X] yes [ ] no	[X] yes [ ] no	[X] yes [ ] no	[X] yes [ ] no

TEST SUSPENSION AND TEST

N	Vc1	Vc2
10 $^{-6}$	173	169
10 $^{-7}$	13	16
Test suspension (N ir No)		

$\bar{x}_{wm}$ = 168,64 x 10^6 = 168636364 log **8,23**

N_o = N/10 = 16863636,4 **7,23**

7,17 ≤ **N_o** ≤ 7,70 [X] yes [ ] no

Conc. of the product	Vc1	Vc2	Na = $\bar{x}$ x 10	log Na	log R = log No - log Na (**logNo =7,23**)	Contact time
ready-to-use	< 14	< 14	< **140**	**2,15**	> **5,08**	5 min

x - average of Vc1 and Vc2.

$\bar{X}$wm - weighted mean of $\bar{x}$

R - reduction, jeiif Na < 140 , log R = > [log No - 2,15] (if Vc < 14 KSV)

if Na > X x 10 , log R = < [log No - log X] (X = upper Vc limit)

mikrobiologijos specialistė
Irina Kapitak
2020 - 31