



TYRIMAI
ISO/IEC 17025

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**MICROBIOLOGICAL TESTING DEPARTMENT
OF NATIONAL PUBLIC HEALTH SURVEILLANCE LABORATORY**

Zolyno street 36, LT-10210 Vilnius, Lithuania, Tel. +370 5 234 40 03, fax +370 5 210 54 05 E-mail priimamasis.zolyno@nvspl.lt

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

Sampling report No: _____ (object name and address)

Samples selected by: **Gediminas Galinis**

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	<i>The evaluation of bactericidal activity of chemical disinfectants with E.coli</i>	R>5, bactericidically active
	LST EN 1276:2019	<i>The evaluation of bactericidal activity of chemical disinfectants with S.aureus</i>	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	<i>The evaluation of fungicidal activity of chemical disinfectants with A.brasiliensis</i>	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 Prasmutiene**
(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 (fungicidal 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: *Aspergillus brasiliensis* ATCC 16404

**VALIDATION AND CONTROLS
 Conidiospores concentration > 75%**

Validation suspension (Nvo)		Experimental conditions control (A)		Neutralizer or filtration control (B)		Method validation (C)	
Vc1+Vc2	89 (43 + 46) \bar{x} = 45	Vc1+Vc2 (5 min)	70 (37 + 33) \bar{x} = 35	Vc1+Vc2	76 (35 + 41) \bar{x} = 38	Vc1+Vc2 (5 min)	57 (27 + 30) \bar{x} = 29
		Vc1+Vc2 (15 min)	61 (29 + 32) \bar{x} = 31			Vc1+Vc2 (15 min)	70 (34 + 36) \bar{x} = 35
$30 \leq \bar{x} N_{vo} \leq 160$	45	$\bar{x} A \geq 0,5 \times \bar{x} N_{vo}$	22	$\bar{x} B \geq 0,5 \times \bar{x} N_{vo}$	22	$\bar{x} C \geq 0,5 \times \bar{x} N_{vo}$	22
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

TEST SUSPENSION AND TEST

N	Vc1	Vc2	\bar{x}	\bar{x}_{wm}	N_o	$\log R$	log Na	log No	log Na - log No	log
10^{-5}	153	157	154,09	$154,09 \times 10^5$	$N/10$	$1540909,9$	2,15	6,19	$6,19 - 2,15 = 4,04$	6,19
10^{-6}	15	14	14,5				2,15	6,19	$6,19 - 2,15 = 4,04$	
Test suspension (N ir No)										

Conc. of the product ready-to-use	Vc1	Vc2	Na = $\bar{x} \times 10$	log Na	log No - log Na	Contact time
< 14	< 14	< 14	140	2,15	$6,19 - 2,15 = 4,04$	5 min
< 14	< 14	< 14	140	2,15	$6,19 - 2,15 = 4,04$	15 min

\bar{x} - average of Vc1 and Vc2.

\bar{x}_{wm} - weighted mean of \bar{x}

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