T.R. YEDİTEPE UNIVERSITY THE BIOCIDE AND RESEARCH AND DEVELOPMENT LABORATORIES

PRON-UP MICROBIOLOGICAL ACTIVITY RESULT REPORT

Name of specimen	PRON-UP CE
Reg. No. of specimen	2019-38/190038
Report No. / Revision No. / Report code	190385-00/06
Reporting date	30.05.2019

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Document No.: R03. P11 2/10 Rev. No. : 01

First release date: 01.07.2017 Rev. Date : 02.01.2019

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1. SPECIMEN INFORMATION

Trade name of the product	PRON-UP CE
Specimen arrival date / time	03.04.2019 09:55:00
License holder of the product	Sanidez İlaç San. Tic. Ltd. Şti.
Formulation type	Solid
Formulation content	Quaternary ammonium compounds 40% w / w
Institution / date, number of sending the specimen	SAKARYA HSM / 01.04.2019, E.288
Arrival reason, seal status and quantity	Based on license, stamped, 30x20gr
Address from which the specimen was taken	Sanidez İlaç San. Tic. Ltd. Şti. Erenler Mah. 1184 Sok. No: 1 Erenler / Sakarya
Production location and address of the specimen	Erenler Mah. 1184 Sok. No: 1 Erenler / Sakarya
Type of packaging material	Plastic
Specimen charge / serial no	-
Production and expiration date of the specimen	02.04.2019 – 02.04.2021

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2. ANALYSIS RESULTS

2.1. Test method for microbiological activities / method information

Start and end dates of the attempt	10.5.2019 / 29.5.2019
Number of retries	2 (two)
Results	On the table (Table-2.2)

Microbiological parameters	Name of Microorganism	Method / technique	Number of used plates	Method summary
Bactericidal	Staphylococcus aureus ATCC 6538	Spreading plate method	2 (two)	It is the logarithmic calculation of the remaining number of microorganisms due to the reduction of the original microorganism at the end of the contact period.
effect of chemical disinfectants and antiseptics used in the medical field	Pseudomonas aeruginosa ATCC 15442	Spreading plate method	2 (two)	It is the logarithmic calculation of the remaining number of microorganisms due to the reduction of the original microorganism at the end of the contact period.
	Enterococcus hirae ATCC 10541	Spreading plate method	2 (two)	It is the logarithmic calculation of the remaining number of microorganisms due to the reduction of the original microorganism at the end of the contact period.
Microbial activity of chemical disinfectants used	Mycobacterium avium ATCC 15769	Spreading plate method	2 (two)	It is the logarithmic calculation of the remaining number of microorganisms due to the reduction of the original microorganism at the end of the contact period.
in medicine (including equipment disinfectants)	Mycobacterium terrae ATCC 15755 (Strain W45)	Spreading plate method	2 (two)	It is the logarithmic calculation of the remaining number of microorganisms due to the reduction of the original microorganism at the end of the contact period.
Fungicidal and yeasticidal effects of chemical	Candida albicans ATCC 10231	Spreading plate method	2 (two)	It is the logarithmic calculation of the remaining number of microorganisms due to the reduction of the original microorganism at the end of the contact period.
disinfectants and antiseptics used in medical devices.	Aspergillus niger ATCC 16404	Spreading plate method	2 (two)	It is the logarithmic calculation of the remaining number of microorganisms due to the reduction of the original microorganism at the end of the contact period.

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2.2. Test method for microbiological activities / application details for the method

Name of microorganism	Method	Product application area	Application dose	Contact time	Environmental conditions	Disruptive substance	Neutralizer
Staphylococcus aureus ATCC 6538	TS EN 13727	Medical area	2g / Litre	5 minutes	20 C	0,3 g/L BSA	Egg Lecithin (3gr/L) + Tween 80 (30 gr/L) + Saponin (30gr/L)
Pseudomonas aeruginosa ATCC 15442	TS EN 13727	Medical area	2g / Litre	5 minutes	20 C	0,3 g/L BSA	Egg Lecithin (3gr/L) + Tween 80 (30 gr/L) + Saponin (30gr/L)
Enterococcus hirae ATCC 10541	TS EN 13727	Medical area	2g / Litre	5 minutes	20 C	0,3 g/L BSA	Egg Lecithin (3gr/L) + Tween 80 (30 gr/L) + Saponin (30gr/L)
Mycobacterium avium ATCC 15769	TS EN 13727	Medical area	2g / Litre	60 minutes	20 C	0,3 g/L BSA	Egg Lecithin (3gr/L) + Tween 80 (30 gr/L) + Saponin (30gr/L)
Mycobacterium terrae ATCC 15755 (Strain W45)	TS EN 14348	Medical area	2g / Litre	60 minutes	20 C	0,3 g/L BSA	Egg Lecithin (3gr/L) + Tween 80 (30 gr/L) + Saponin (30gr/L)
Candida albicans ATCC 10231	TS EN 13624	Medical area	2g / Litre	5 minutes	20 C	0,3 g/L BSA	Egg Lecithin (3gr/L) + Tween 80 (30 gr/L) + Saponin (30gr/L)
Aspergillus niger ATCC 16404	TS EN 13624	Medical area	2g / Litre	5 minutes	20 C	0,3 g/L BSA	Egg Lecithin (3gr/L) + Tween 80 (30 gr/L) + Saponin (30gr/L)

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2.3. Test results and result evaluation table

		Product	Antimicrobial	Antimicrobial	Outcome as		
Name of microorganism	Method	application area	effect (Reduction %)	effect (Logarithmic reduction)	Source	Limit	D
Staphylococcus aureus ATCC 6538	TS EN 13727	Medical area	99,999 %	> 10 ⁵ ; > 5,39	TS EN 13727	≥ 5 log	U
Pseudomonas aeruginosa ATCC 15442	TS EN 13727	Medical area	99,999 %	> 10 ⁵ ; > 5,10	TS EN 13727	≥ 5 log	U
Enterococcus hirae ATCC 10541	TS EN 13727	Medical area	99,999 %	> 10 ⁵ ; > 5,02	TS EN 13727	≥ 5 log	U
Mycobacterium avium ATCC 15769	TS EN 14348	Medical area	99,99 %	> 10 ⁴ ; > 6,15	TS EN 14348	≥ 4 log	U
Mycobacterium terrae ATCC 15755 (Strain W45)	TS EN 14348	Medical area	99,99 %	> 10 ⁴ ; > 6,15	TS EN 14348	≥ 4 log	U
Candida albicans ATCC 10231	TS EN 13624	Medical area	99,99 %	> 10 ⁴ ; > 4,15	TS EN 13624	≥ 4 log	U
Aspergillus niger ATCC 16404	TS EN 13624	Medical area	99,99 %	> 10 ⁴ ; > 4,02	TS EN 13624	≥ 4 log	U

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2.4. Test results method / method check and control table

Name of	VC	N	I ~ N	NI	N ₀ Lg N ₀	N _A	Lg N _A	Co	Control suspension			A B	Ъ	
microorganism	٧C	IN Lg I	Lg N	1 N ₀		INA		$N_{\rm V}$	N_{V0}	V_{C1}	V_{C2}	A	В	С
Staphylococcus aureus ATCC 6538	<14	3,5x10 ⁸	8,54	3,5x10 ⁷	7,54	< 140	< 2,15	$6x10^{2}$	6x10 ¹	62	60	6x10 ¹ 61-60	5x10 ¹ 54-51	4,5x10 ¹ 47-44
Pseudomonas aeruginosa ATCC 15442	<14	1,8x10 ⁸	8,25	1,8x10 ⁷	7,25	< 140	< 2,15	5x10 ²	5x10 ¹	52	50	5x10 ¹ 51-50	5x10 ¹ 50-49	4x10¹ 42-40
Enterococcus hirae ATCC 10541	<14	1,5x10 ⁸	8,17	1,5x10 ⁷	7,17	< 140	< 2,15	8x10 ²	8x10 ¹	86	75	7x10 ¹ 71-69	6x10 ¹ 63-60	6x10 ¹ 60-59
Mycobacterium avium ATCC 15769	<14	2x10 ⁹	9,30	2x10 ⁸	8,30	< 140	< 2,15	4x10 ²	4x10¹	44	36	4x10 ¹ 40-39	4,5x10 ¹ 45-44	4x10¹ 40-39
Mycobacterium terrae ATCC 15755 (Strain W45)	<14	2x10 ⁹	9,30	2x10 ⁸	8,30	< 140	< 2,15	4x10 ²	4x10 ¹	43	40	4x10 ¹ 40-39	4x10¹ 40-40	3,5x10 ¹ 35-34
Candida albicans ATCC 10231	<14	2x10 ⁷	7,30	2x10 ⁶	6,30	< 140	< 2,15	7x10 ²	7x10¹	70	69	7x10 ¹ 71-70	6x10 ¹ 62-60	6x10 ¹ 60-59
Aspergillus niger ATCC 16404	<14	1,5x10 ⁷	7,17	1,5x10 ⁶	6,17	< 140	< 2,15	6x10 ²	6x10 ¹	61	59	5x10 ¹ 51-50	5,5x10 ¹ 55-54	5x10 ¹ 50-49

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3. Approvals and Signatures

30.05.2019
Sadık KALAYCI
Biologist
Microbiological Activity Laboratory Unit Manager
SIGNATURE

30.05.2019
Food Technisian
Deputy of Sampling and Reporting Unit
SIGNATURE

30.05.2019 Confirmable Prof.Dr. Fikrettin ŞAHİN Head of Laboratory SIGNATURE

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YEDİTEPE UNIVERSITY

THE BIOCIDE AND RESEARCH AND DEVELOPMENT LABORATORIES

ANALYSIS AND TEST RESULTS	
	PRON-UP CE
	2040-20/400020

Name of specimen Reg. No. of specimen 2019-38/190038 Report No. / Revision No. / Report code 190385-00/06 Reporting date 30.05.2019

Legal Information

The full or partial copying of the final report can only be done with **WRITTEN** approval from the biocide and research and development laboratories of the University of Yeditepe. In addition, these may not be used outside of the OFFICIAL purpose without the WRITTEN permission of the Yeditepe University's biocide and research and development laboratories, and the name of the university must not be included on the product label. Unless otherwise specified, the Rectorate of Yeditepe University reserves all types of legal applications.

General information

- As a result of the investigation and analysis, the above values were determined. 1.
- 2. The results of the analysis apply to the sample mentioned above.
- No part of this analysis report can be used alone or separately.
- No part of this report may be copied or reproduced without the written permission of the laboratory. 4.
- This report cannot be used in court / administrative proceedings and for advertising purposes.
- Unsigned and sealed reports are invalid.
- Abbreviation: D: Rating, U: Suitable, U.D. Not suitable, D.Y.: No assessment made, G.K.: Recovery, Ö.B.: measurement uncertainty, Ö.L: measuring limit. 7. U.S.S: Long-term stability. K.S.S: short-term stability. A.U.S: Open product stability.
- 8. * Labeled analyzes are in the accreditation area
- The declared expanded measurement uncertainty is the value that is obtained by multiplying the standard uncertainty by the expansion coefficient as k = 2 and offering a reliability of 95%.
- The results on which opinions / comments are given do not relate to the accredited scope. 10.
- The "Biocide Product Ordinance", which was published in the official newspaper of December 31, 2019 and with the number 27449 4th doublet and approved with the number 11. 19020089-704.99-519 on January 28, 2019 "Authorized laboratories for biocide product analyzes; Physical tests of biocidal products are carried out. These tests are repeated with every stability test and a new report is generated. If the tests do not meet the product specification, the product is considered inappropriate and no chemical and biological effectiveness tests are carried out. Therefore, the number of reports to be generated for the same specimen depends on the results of the analysis.
- 12. The decision rule is used in favor of the customer.
- Revision information 13.
- The evaluation of the results of the microbiological test recognized as SUITABLE was given because of the desired log decrease and knowing that it was 14. efficient against the bacteria. That the rating for NOT SUITABLE was because it was not efficient.
- 15. Abbreviations used in the report and associated evaluation criteria for microbiological tests:

Vc: Enumeration of microorganisms / colonies after reduction Lg N: Initial number of microorganisms / colonies (logarithmic)

Lg N0: Number of microorganisms / colonies before the contact time (logarithmic)

Number of initial microorganisms / colonies

N0: Number of microorganisms / colonies before the contact time

Nv: Validation suspension

Nv0: Validation suspension before the contact time NA: Number of microorganisms / colonies remaining after the reduction

Lg NA: Number of microorganisms / colonies remaining after the reduction (logarithmic)

R: Logarithmic Reduction (LgNo - LgNA)

Check the test conditions A: Control of neutralizing toxicity B:

Control of the dilution neutralization method C:

Must be between $1,5 \times 10^8$ and 5×10^8 . Logarithmically (for bacteria) it must be between $8,17 \le \lg N \le 8,70$. N:

Must be between 1.5×10^7 and 5×10^7 . Logarithmically (for bacteria) it must be between $7.17 \le \lg N \le 7.70$. N0: Must be between $1,5x10^7$ and $5x10^7$. Logarithmically (for yeast and fungus) it must be between $7,17 \le \lg N \le 7,70$. Must be between $1,5x10^6$ and $5x10^6$. Logarithmically (for yeast and fungus) it must be between $6,17 \le \lg N \le 6,70$. N:

NO: Must be between 1.5×10^9 and 5×10^9 . Logarithmically (at Mycobacterium spp) it must be between $9.17 \le \lg N \le 9.70$. N0:

Must be between $1,5 \times 10^8$ and 5×10^8 . Logarithmically (at Mycobacterium spp) it must be between $8,17 \le \lg N \le 8,70$. Must be between $3x10^8$ and $8x10^8$. Logarithmically (With Mycobacterium avium according to EN 14204) it must be between $8,48 \le \lg N \le 8,90$. Must be between $3x10^7$ and $8x10^7$. Logarithmically (With Mycobacterium avium according to EN 14204) it must be between $7,48 \le \lg N \le 7,90$. N: NO:

Must be between $3x10^2$ and $1.6x10^3$.

Must be between $3x10^1$ and $1.6x10^2$. (The number of colonies must be between 30-160). Nv0:

Average of A: Must be 0.5 times higher or the same as NV0. So the average of A; Should be at least the same as the smallest half of the average of Nv0. Average of B: Must be 0.5 times higher or the same as NV0. So the average of B; Should be at least the same as the smallest half of the average of Nv0. Average of C: Must be 0.5 times higher or the same as NV0. So the average of C; Should be at least the same as the smallest half of the average of Nv0.

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> > **PARAPH PARAPH** PARAPH

İşbu belge TÜRKÇE metinden aslına uygun olarak İNGİLİZCE diline tarafımca tercüme edilmiştir . 14.03.2020