



YEDITEPE UNIVERSITY

BIOCIDAL-RESEARCH AND DEVELOPMENT LABORATORY

AKASPRAY

BIOLOGICAL ACTIVITY ANALYSIS REPORT

AKASPRAY	AKASPRAY
SAMPLE RECORD NUMBER	2019-014
REPORT RECORD NUMBER	014-AG-2019
DATE	04.03.2019

REPORT CONTENT

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2. Product Analysis Results
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1. PRODUCT INFORMATION

REPORT RECORD NUMBER AND DATE	014-AG-2019	04.03.2019
TESTED PRODUCT NAME	AKASPRAY	
SAMPLE RECORD NUMBER	2018-014	
PRODUCT ARRIVAL DATE	15.02.2019	
ACTIVE SUBSTANCES OF PRODUCT	Ethyl alcohol 50%; Isopropyl alcohol 10%	
SAMPLE SENDING INSTITUTION	Detro Healthcare Kimya Sanayi A.Ş.	
SAMPLE AMOUNT	3x100 ml	
SAMPLE PACKING MATERIAL	Plastic	
SAMPLE CHARGE/SERIAL NO	248232	
PRODUCTION AND EXPIRATION DATE OF SAMPLE	03.02.2019 - 03.02.2021	

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2. PRODUCT ANALYSIS RESULTS

2.1. Microbiological Efficiency Analysis

TEST START AND END DATE	26.02.2019/27.02.2019
TEST METHOD	EN 13727
DILUENT	-
INTERFERING SUBSTANCE	0,3 g/L Bovine Albumin Serum
NEUTRALIZER	Egg Lecithin (3 gr/L)+Tween 80 (30 gr/L)+Saponin (30 gr/L)
NUMBER OF TEST REPEATS	2
TEST CONDITIONS	Bacteria: 37 °C
RESULTS	Presented in the appendix.
COMMENT	According to EN 13727 test methods, the product named as Akaspray 100 % concentrations was investigated for its reduction (%) effect against microorganisms listed in the attachment in 30 second contact time at 20 °C under clean conditions (0.3 g/L). The results are presented in the attachment.

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3. APROVALS AND SIGNATURES



Biologist Dilek ÖZTÜRKOĞLU

Analyst



Prof. Fikrettin ŞAHİN

Chair of Biocidal Laboratory

4. LEGAL INFORMATION

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5. ADDITIONS

ANTIMICROBIAL TEST RESULTS				
NAME OF MICROORGANISM	BIOLOGICAL ACTIVITY	TEST CONCENTRATION	CONTACT TIME	ANTIMICROBIAL EFFECT (%) REDUCTION
MRSA (Methicillin-resistant <i>Staphylococcus aureus</i>)	+	100%	30 Second	99.999%
VRE (Vancomycin-resistant <i>Enterococcus faecium</i>)	+	100%	30 Second	99.999%
<i>Acinetobacter baumannii</i>	+	100%	30 Second	99.999%

NAME OF MICROORGANISM	V _c	N N ₀	Lg N Lg N ₀	N _A Lg N _A	R lg R
MRSA (Methicillin-resistant <i>Staphylococcus aureus</i>)	<14	1.5×10 ⁸ 1.5×10 ⁷	8.17 7.17	<140 < 2.15	>10 ⁵ >5.02
VRE (Vancomycin-resistant <i>Enterococcus faecium</i>)	<14	1.5×10 ⁸ 1.5×10 ⁷	8.17 7.17	< 140 < 2.15	>10 ⁵ >5.02
<i>Acinetobacter baumannii</i>	<14	5×10 ⁸ 5×10 ⁷	8.69 7.69	< 140 < 2.15	>10 ⁵ > 5.54

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NAME OF MICROORGANISM	VALIDATION CONTROL SUSPENSION $N_V - N_{V0}$ $V_{C1} + V_{C2}$	CONTROL OF EXPERIMENTAL CONDITIONS (A) $V_{C1} + V_{C2}$	CONTROL OF NEUTRALIZING AGENT TOXICITY (B) $V_{C1} + V_{C2}$	CONTROL OF DILUTION NEUTRALIZATION METHOD (C) $V_{C1} + V_{C2}$
MRSA (Methicillin-resistant <i>Staphylococcus aureus</i>)	$7 \times 10^2 - 7 \times 10^1$ 71-71	6×10^1 61-58	5.5×10^1 58-51	6×10^1 61-60
VRE (Vancomycin-resistant <i>Enterococcus faecium</i>)	$6 \times 10^2 - 6 \times 10^1$ 60-61	5.5×10^1 55-53	6×10^1 60-60	6×10^1 60-55
<i>Acinetobacter baumannii</i>	$5 \times 10^2 - 5 \times 10^1$ 51-47	5.5×10^1 55-53	6×10^1 60-59	5×10^1 50-45

V_C : Number of viable microorganism

$Lg N$: Initial number of microorganism. (Logarithmically)

$Lg N_0$: Number of microorganism before contact time. (Logarithmically)

N : Initial number of microorganism

N_0 : Number of microorganism before contact time.

N_A : Number of microorganism after reduction.

$Lg N_A$: Number of microorganism after reduction. (Logarithmically)

R : Logarithmic reduction ($Lg N_0 - Lg N_A$)

--- N , $1,5 \times 10^8$ and 5×10^8 must be between. (Bacteria)

--- N , $1,5 \times 10^7$ and 5×10^7 must be between. (Candida and Fungus)

--- N , $1,5 \times 10^9$ ile 5×10^9 must be between. (*Mycobacterium* spp.)

--- N , 3×10^8 ile 8×10^8 must be between. (According to EN 14204 test methods *Mycobacterium avium*)

--- N_V , 3×10^2 ile $1,6 \times 10^3$ must be between.

--- N_{V0} , 3×10^1 ile $1,6 \times 10^2$ must be between. Number of viable microorganism 30-160 must be between.