

Test report No. sd5919

EVALUATION OF FUNGICIDAL OR YEASTICIDAL ACTIVITY IN THE MEDICAL AREA
(EN 13624)

Name of the product:	CHLORINEX-60
Batch number:	587641
Order number:	19006
Manufacturer:	Chemi-Pharm Ltd.
Client, representative:	Chemi-Pharm Ltd., Põllu 132, Tallinn, 10917, ESTONIA Maris Millner, +372-51-77-090
Date of delivery:	20.02.2019
Test material conditions:	No specific features, sample in the manufacturers tare
Storage conditions:	In room temperature, dark
Active substance – conc.:	1 tab = 1.5 g active chlorine if dissolved in water, thus 1 tab/1.5 l 1000 ppm active chlorine
Appearance of the product:	White tablets
Test concentration:	1 tab / 1.5 l
Contact time:	15 min
Interfering substance:	3.0 g/l bovine albumin + 3.0 ml/l sheep blood erythrocytes = dirty conditions
Rinsing liquid:	Tryptone 1 g/l + NaCl 9 g/l
Neutralizer:	-
Test organisms:	<i>Aspergillus brasiliensis</i> ATCC 16404
Testing method:	EVS-EN 13624:2013 Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity in the medical area.
Testing date:	25.02.2019 – 28.02.2019
Results:	look appendix 1-2





Allar Laaneleht
Chief specialist

Date of test report: 28.02.2019

Appendix 1

TEST RESULTS (fungicidal suspension test)

EVS-EN 13624:2013; Phase 2, step 1;
Membrane filtration method;
Rinsing liquid: Tryptone 1 g/l + NaCl 9 g/l;
Test organism: *Aspergillus brasiliensis* ATCC 16404;
Test temperature: +20° C; Incubation temperature: +30° C
Interfering substance: 3.0 g/l bovine albumin + 3.0 g/l sheep blood erythrocytes = dirty conditions;
Nordic Tersus Laboratory LLC.; Date of test: 25.02.2019
Responsible person: Allar Laaneleht

Validation and controls

Dirty conditions

Validation suspension N_{vo}			Experimental conditions control (A)			Filtration control (B)			Method validation (C)		
V_{C1}	47	$\bar{x} = 51.5$	V_{C1}	32	$\bar{x} = 35$	V_{C1}	43	$\bar{x} = 41.5$	V_{C1}	59	$\bar{x} = 52$
V_{C2}	56		V_{C2}	38		V_{C2}	40		V_{C2}	45	
$30 \leq \bar{x} N_{vo} \leq 160$?yes X; no ☐			$\bar{x} A$ is $\geq 0.5 \bar{x} N_{vo}$?yes X; no ☐			$\bar{x} B$ is $\geq 0.5 \bar{x} N_{vo}$?yesX; no ☐			$\bar{x} C$ is $\geq 0.5 \bar{x} N_{vo}$? yesX; no ☐		

Test suspension and test

Testsuspension: N and N_0	N	V_{C1}	V_{C2}	$\bar{x}_{wm} = 1.76 \times 10^7 \log N = 7.25$ $N_0 = N/10$; $\log N_0 = 6.25$ $6.17 \leq \log N_0 \leq 6.70$; yes X; no ☐
	10^{-5}	178	166	
	10^{-6}	24	19	

Experimental results

Concentration of the product	Dilution step	V_{C1}	V_{C2}	Na ($=\bar{x} \cdot 10$)	$\log Na$	$\log R$	Contact time	Conditions
1 tab / 10 l	-	>165	>165	>1650	>3.22	<3.03	15 min	Dirty
1 tab / 1.5 l	-	17	15	160	2.20	4.05	15 min	Dirty
3 tab / 1.5 l	-	<14	<14	<140	<2.15	>4.10	15 min	Dirty

Explanations:

V_C = count per ml (one plate or more)
 $\bar{x}$ = average of V_{C1} and V_{C2} (1. + 2. duplicate)
 N = cfu/ml microbes in testsuspension
 N_0 = cfu/ml at the start of the contact time (t=0)
 N_{vo} = cfu/ml in the validation suspension (t=0)
 Na = surviving microbes after the test
 R = reduction factor ($R = N_0 / Na$; $\log R = \log N_0 - \log Na$)

Appendix 2

Interpretation:

The product **CHLORINEX-60** (batch no. 587641) was tested according to the test method EVS-EN 13624:2013. The test was performed at $20\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$, under dirty conditions during contact time of 15 min. The membrane filtration method was used for testing the product's effectiveness against the reference strain: *Aspergillus brasiliensis* ATCC 16404. Under dirty conditions the tested product was effective against the reference strain within contact time tested.

Conclusion:

The surviving count of the reference strain showed at least 4 lg reduction meaning that **1 tab / 1.5 l** solution of the product **CHLORINEX-60** has a fungicidal effect under dirty conditions within 15 min.



The image shows a handwritten signature in blue ink over a circular blue stamp. The stamp contains the text: "ACCREDITED LABORATORY No L263 ISO/IEC 17025", "NORDIC TERSUS LABORATORY", and "REPUBLIC OF ESTONIA".

Allar Laaneleht

Chief specialist

28.02.2019