



**Test report No. 024022hd**

EVALUATION OF BACTERICIDAL ACTIVITY OF DISINFECTANTS AND ANTISEPTICS  
USED IN THE MEDICAL AREA (EN 13727)

**Name of the product: CHEMISEPT MED**

Batch number: 196161220

Date of test report: 05/04/2022

Client, representative:  
Chemi-Pharm Ltd.  
Tänassilma tee 11  
Tänassilma küla  
Saku vald 76406  
ESTONIA

Test report No. 024022hd

EVALUATION OF BACTERICIDAL ACTIVITY OF DISINFECTANTS AND ANTISEPTICS  
USED IN THE MEDICAL AREA (EN 13727)

**Name of the product:** CHEMISEPT MED  
**Batch number:** 196161220  
**Order number:** 20049  
**Manufacturer:** Chemi-Pharm Ltd.  
**Client, representative:** Chemi-Pharm Ltd., Tännassilma tee 11; Tännassilma küla; Saku vald  
76406; ESTONIA; Maris Millner, +3725177090.  
**Date of delivery:** 29.03.2022  
**Test material conditions:** No specific features, sample in the manufacturers tare  
**Storage conditions:** In room temperature, darkness  
**Active substance – conc.:** Ethyl alcohol 72.5% w/w, isopropyl alcohol 7.5% w/w  
**Appearance of the product:** Transparent, colourless liquid  
**Test concentration:** 80%, 50%, 10%  
**Contact time:** 15 s  
**Interfering substance:** 3 g/l bovine albumin + 3 ml/l sheep blood erythrocytes (dirty  
conditions)  
**Neutralizer:** -  
**Rinsing liquid:** Tryptone 1 g/l + NaCl, 9 g/l  
**Test organisms:** *Pseudomonas aeruginosa* ATCC 15442  
*Staphylococcus aureus* ATCC 6538  
*Enterococcus hirae* ATCC 10541  
*Escherichia coli* K12 NCTC 10538  
*MRSA Staphylococcus aureus* ATCC 33592  
*Acinetobacter baumannii* ATCC 19606  
*Enterococcus Faecium* VRE ATCC 700221  
*Salmonella enterica* subsp. *Typhimurium* ATCC13311  
**Testing method:** EVS-EN 13727:2012+A2:2015  
Chemical disinfectants and antiseptics - Quantitative suspension test  
for the evaluation of bactericidal activity in the medical area - Test  
method and requirements (phase 2, step 1)  
**Testing period:** 29.03.2022 - 05.04.2022  
**Results:** look appendix 1-8  
**Interpretation and conclusion:** look appendix 9



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Näle Aas-Valleriani  
Microbiologist

Date of test report: 05.04.2022

\* - Data provided by the customer

## TEST RESULTS (bactericidal suspension test)

EVS-EN 13727:2012+A2:2015; Phase 2, step 1  
 Membrane filtration method  
 Product diluent: Distilled water  
 Appearance of product solutions: Transparent, colourless liquid  
 Rinsing liquid: Tryptone 1 g/l + NaCl 9 g/l  
 Test organism: *Staphylococcus aureus* ATCC 6538  
 Test temperature: +20° C; Incubation temperature: +37 °C  
 Interfering substance: 3 g/l bovine albumin + 3 ml/l sheep blood erythrocytes  
 Nordic Tersus Laboratory LLC.  
 Date of test: 29.03.2022  
 Responsible person: Kerda Treksler

### Validation and controls

#### Dirty conditions

Validation suspension $N_{vo}$			Experimental conditions (A)			Filtration control (B)			Method validation (C)		
$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$
76	59	67.5	45	36	40.5	42	49	45.5	46	47	46.5
$30 \leq \bar{x} N_{vo} \leq 160$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} A \text{ is } \geq 0.5 \bar{x} N_{vo}$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} B \text{ is } \geq 0.5 \bar{x} N_{vo}$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} C \text{ is } \geq 0.5 \bar{x} N_{vo}$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>		

### Test suspension and test

Testsuspension:	$N$	$V_{C1}$	$V_{C2}$	$\bar{x}_{wm} = 2.89 \times 10^8$ ; $\log N = 8.46$ $N_0 = N/10$ ; $\log N_0 = 7.46$ $7.17 \leq \log N_0 \leq 7.70$ ; yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>
$N$ and $N_0$	$10^{-6}$	271	309	
	$10^{-7}$	23	32	

### Experimental results

Concentration of the product %	Dilution step	$V_{C1}$	$V_{C2}$	$N_a$ ( $=\bar{x} \cdot 10$ )	$\log N_a$	$\log R$	Contact time	Conditions
80.0%	-	<14	<14	<140	<2.15	>5.31	15s	Dirty
50.0%	-	>165	>165	>1650	>3.22	<4.24	15s	Dirty
10.0%	-	>165	>165	>1650	>3.22	<4.24	15s	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)  
 $N_a$  = surviving microbes after the test  
 $R$  = reduction factor ( $R = N_0 / N_a$ ;  $\log R = \log N_0 - \log N_a$ )

The test results apply to the tested sample only.

All the components of this test report are recognized as a portion of a complete report. The test report shall not be reproduced except in full, without approval of the laboratory.

N-7/29-V9

## TEST RESULTS (bactericidal suspension test)

EVS-EN 13727:2012+A2:2015; Phase 2, step 1

Membrane filtration method

Product diluent: Distilled water

Appearance of product solutions: Transparent, colourless liquid

Rinsing liquid: Tryptone 1 g/l + NaCl 9 g/l

Test organism: *Enterococcus hirae* ATCC 10541

Test temperature: +20° C; Incubation temperature: +37 °C

Interfering substance: 3 g/l bovine albumin + 3 ml/l sheep blood erythrocytes

Nordic Tersus Laboratory LLC.

Date of test: 29.03.2022

Responsible person: Kerda Treksler

## Validation and controls

### Dirty conditions

Validation suspension $N_{vo}$			Experimental conditions (A)			Filtration control (B)			Method validation (C)		
$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$
72	61	66.5	70	65	67.5	64	56	60	62	59	60.5
$30 \leq \bar{x} N_{vo} \leq 160$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} A$ is $\geq 0.5 \bar{x} N_{vo}$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} B$ is $\geq 0.5 \bar{x} N_{vo}$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} C$ is $\geq 0.5 \bar{x} N_{vo}$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>		

## Test suspension and test

Testsuspension:	$N$	$V_{C1}$	$V_{C2}$	$\bar{x}_{wm} = 2.84 \times 10^8$ ; $\log N = 8.45$ $N_0 = N/10$ ; $\log N_0 = 7.45$ $7.17 \leq \log N_0 \leq 7.70$ ; yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>
$N$ and $N_0$	$10^{-6}$	<b>285</b>	<b>290</b>	
	$10^{-7}$	<b>19</b>	<b>31</b>	

## Experimental results

Concentration of the product %	Dilution step	$V_{C1}$	$V_{C2}$	$N_a$ ( $=\bar{x} \cdot 10$ )	$\log N_a$	$\log R$	Contact time	Conditions
80.0%	-	<14	<14	<140	<2.15	>5.30	15s	Dirty
50.0%	-	>165	>165	>1650	>3.22	<4.23	15s	Dirty
10.0%	-	>165	>165	>1650	>3.22	<4.23	15s	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 ( $t=0$ )

$N_a$  = surviving microbes after the test

$R$  = reduction factor ( $R = N_0 / N_a$ ;  $\log R = \log N_0 - \log N_a$ )

The test results apply to the tested sample only.

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N-7/29-V9

### TEST RESULTS (bactericidal suspension test)

EVS-EN 13727:2012+A2:2015; Phase 2, step 1

Membrane filtration method

Product diluent: Distilled water

Appearance of product solutions: Transparent, colourless liquid

Rinsing liquid: tryptone 1 g/l + NaCl 9 g/l

Test organism: *Pseudomonas aeruginosa* ATCC 15442

Test temperature: +20° C; Incubation temperature: +37 °C

Interfering substance: 3 g/l bovine albumin + 3 ml/l sheep blood erythrocytes

Nordic Tersus Laboratory LLC.

Date of test: 29.03.2022

Responsible person: Kerda Treksler

### Validation and controls

#### Dirty conditions

Validation suspension $N_{vo}$			Experimental conditions (A)			Filtration control (B)			Method validation (C)		
$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$
130	120	125	109	126	117.5	95	125	110	94	117	105.5
$30 \leq \bar{x} N_{vo} \leq 160?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} A \text{ is } \geq 0.5 \bar{x} N_{vo}?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} B \text{ is } \geq 0.5 \bar{x} N_{vo}?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} C \text{ is } \geq 0.5 \bar{x} N_{vo}?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>		

### Test suspension and test

Testsuspension:	$N$	$V_{C1}$	$V_{C2}$	$\bar{x}_{wm} = 3.43 \times 10^8$ ; $\log N = 8.54$ $N_0 = N/10$ ; $\log N_0 = 7.54$ $7.17 \leq \log N_0 \leq 7.70$ ; yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>
$N$ and $N_0$	$10^{-6}$	330	330	
	$10^{-7}$	54	41	

### Experimental results

Concentration of the product %	Dilution step	$V_{C1}$	$V_{C2}$	$N_a$ ( $=\bar{x} \cdot 10$ )	$\log N_a$	$\log R$	Contact time	Conditions
80.0%	-	<14	<14	<140	<2.15	>5.39	15s	Dirty
50.0%	-	<14	<14	<140	<2.15	>5.39	15s	Dirty
10.0%	-	>165	>165	>1650	>3.22	<4.32	15s	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)

$N_a$  = surviving microbes after the test

$R$  = reduction factor ( $R = N_0 / N_a$ ;  $\log R = \log N_0 - \log N_a$ )

The test results apply to the tested sample only.

All the components of this test report are recognized as a portion of a complete report. The test report shall not be reproduced except in full, without approval of the laboratory.

N-7/29-V9

### TEST RESULTS (bactericidal suspension test)

EVS-EN 13727:2012+A2:2015; Phase 2, step 1

Membrane filtration method

Product diluent: Distilled water

Appearance of product solutions: Transparent, colourless liquid

Rinsing liquid: tryptone 1 g/l + NaCl 9 g/l

Test organism: *Escherichia coli* K12 NCTC 10538

Test temperature: +20° C; Incubation temperature: +37 °C

Interfering substance: 3 g/l bovine albumin + 3 ml/l sheep blood erythrocytes

Nordic Tersus Laboratory LLC.

Date of test: 29.03.2022

Responsible person: Kerda Treksler

### Validation and controls

#### Dirty conditions

Validation suspension $N_{vo}$			Experimental conditions (A)			Filtration control (B)			Method validation (C)		
$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$
90	66	78	51	46	48.5	32	42	37	39	62	50.5
$30 \leq \bar{x} N_{vo} \leq 160?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} A \text{ is } \geq 0.5 \bar{x} N_{vo}?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} B \text{ is } \geq 0.5 \bar{x} N_{vo}?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} C \text{ is } \geq 0.5 \bar{x} N_{vo}?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>		

#### Test suspension and test

Testsuspension:	$N$	$V_{C1}$	$V_{C2}$	$\bar{x}_{wm} = 3.08 \times 10^8$ ; $\log N = 8.49$ $N_0 = N/10$ ; $\log N_0 = 7.49$ $7.17 \leq \log N_0 \leq 7.70$ ; yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>
$N$ and $N_0$	$10^{-6}$	324	283	
	$10^{-7}$	23	47	

#### Experimental results

Concentration of the product %	Dilution step	$V_{C1}$	$V_{C2}$	$N_a$ ( $=\bar{x} \cdot 10$ )	$\log N_a$	$\log R$	Contact time	Conditions
80.0%	-	<14	<14	<140	<2.15	>5.34	15s	Dirty
50.0%	-	<14	<14	<140	<2.15	>5.34	15s	Dirty
10.0%	-	>165	>165	>1650	>3.22	<4.27	15s	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)

$N_a$  = surviving microbes after the test

$R$  = reduction factor ( $R = N_0 / N_a$ ;  $\log R = \log N_0 - \log N_a$ )

The test results apply to the tested sample only.

All the components of this test report are recognized as a portion of a complete report. The test report shall not be reproduced except in full, without approval of the laboratory.

N-7/29-V9

**TEST RESULTS (bactericidal suspension test)**

EVS-EN 13727:2012+A2:2015; Phase 2, step 1

Membrane filtration method

Product diluent: Distilled water

Appearance of product solutions: Transparent, colourless liquid

Rinsing liquid: tryptone 1 g/l + NaCl 9 g/l

Test organism: *MRSA Staphylococcus aureus ATCC 33592*

Test temperature: +20° C; Incubation temperature: +37 °C

Interfering substance: 3 g/l bovine albumin + 3 ml/l sheep blood erythrocytes

Nordic Tersus Laboratory LLC.

Date of test: 04.04.2022

Responsible person: Kerda Treksler

**Validation and controls**

**Dirty conditions**

Validation suspension $N_{vo}$			Experimental conditions (A)			Filtration control (B)			Method validation (C)		
$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$
95	92	93.5	131	137	134	73	74	73.5	130	119	124.5
$30 \leq \bar{x} N_{vo} \leq 160?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} A \text{ is } \geq 0.5 \bar{x} N_{vo}?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} B \text{ is } \geq 0.5 \bar{x} N_{vo}?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} C \text{ is } \geq 0.5 \bar{x} N_{vo}?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>		

**Test suspension and test**

Testsuspension:	$N$	$V_{C1}$	$V_{C2}$	$\bar{x}_{wm} = 3.10 \times 10^8$ ; $\log N = 8.49$ $N_0 = N/10$ ; $\log N_0 = 7.49$ $7.17 \leq \log N_0 \leq 7.70$ ; yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>
$N$ and $N_0$	$10^{-6}$	<b>280</b>	<b>322</b>	
	$10^{-7}$	<b>39</b>	<b>41</b>	

**Experimental results**

Concentration of the product %	Dilution step	$V_{C1}$	$V_{C2}$	$N_a$ ( $=\bar{x} \cdot 10$ )	$\log N_a$	$\log R$	Contact time	Conditions
80.0%	-	<14	<14	<140	<2.15	>5.34	15s	Dirty
50.0%	-	>165	>165	>1650	>3.22	<4.27	15s	Dirty
10.0%	-	>165	>165	>1650	>3.22	<4.27	15s	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)

$N_a$  = surviving microbes after the test

$R$  = reduction factor ( $R = N_0 / N_a$ ;  $\log R = \log N_0 - \log N_a$ )

The test results apply to the tested sample only.

All the components of this test report are recognized as a portion of a complete report. The test report shall not be reproduced except in full, without approval of the laboratory.

N-7/29-V9

### TEST RESULTS (bactericidal suspension test)

EVS-EN 13727:2012+A2:2015; Phase 2, step 1

Membrane filtration method

Product diluent: Distilled water

Appearance of product solutions: Transparent, colourless liquid

Rinsing liquid: tryptone 1 g/l + NaCl 9 g/l

Test organism: *Acinetobacter baumannii* ATCC 19606

Test temperature: +20° C; Incubation temperature: +37 °C

Interfering substance: 3 g/l bovine albumin + 3 ml/l sheep blood erythrocytes

Nordic Tersus Laboratory LLC.

Date of test: 30.03.2022

Responsible person: Kerda Treksler

### Validation and controls

#### Dirty conditions

Validation suspension $N_{vo}$			Experimental conditions (A)			Filtration control (B)			Method validation (C)		
$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$
157	179	168	107	134	120.5	106	111	108.5	132	152	142
$30 \leq \bar{x} N_{vo} \leq 160?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} A \text{ is } \geq 0.5 \bar{x} N_{vo}?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} B \text{ is } \geq 0.5 \bar{x} N_{vo}?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} C \text{ is } \geq 0.5 \bar{x} N_{vo}?$ yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>		

### Test suspension and test

Testsuspension:	$N$	$V_{C1}$	$V_{C2}$	$\bar{x}_{wm} = 1.77 \times 10^8$ ; $\log N = 8.25$ $N_0 = N/10$ ; $\log N_0 = 7.25$ $7.17 \leq \log N_0 \leq 7.70$ ; yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>
$N$ and $N_0$	$10^{-6}$	125	193	
	$10^{-7}$	33	38	

### Experimental results

Concentration of the product %	Dilution step	$V_{C1}$	$V_{C2}$	$N_a$ ( $=\bar{x} \cdot 10$ )	$\log N_a$	$\log R$	Contact time	Conditions
80.0%	-	<14	<14	<140	<2.15	>5.10	15s	Dirty
50.0%	-	<14	<14	<140	<2.15	>5.10	15s	Dirty
10.0%	-	>165	>165	>1650	>3.22	<4.03	15s	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)

$N_a$  = surviving microbes after the test

$R$  = reduction factor ( $R = N_0 / N_a$ ;  $\log R = \log N_0 - \log N_a$ )

The test results apply to the tested sample only.

All the components of this test report are recognized as a portion of a complete report. The test report shall not be reproduced except in full, without approval of the laboratory.

N-7/29-V9



**TEST RESULTS (bactericidal suspension test)**

EVS-EN 13727:2012+A2:2015; Phase 2, step 1

Membrane filtration method

Product diluent: Distilled water

Appearance of product solutions: Transparent, colourless liquid

Rinsing liquid: tryptone 1 g/l + NaCl 9 g/l

Test organism: *Salmonella enterica subsp. Typhimurium* ATCC 13311

Test temperature: +20° C; Incubation temperature: +37 °C

Interfering substance: 3 g/l bovine albmin + 3 ml/l sheep blood erythrocytes

Nordic Tersus Laboratory LLC.

Date of test: 30.03.2022

Responsible person: Kerda Treksler

**Validation and controls**

**Dirty conditions**

Validation suspension $N_{vo}$			Experimental conditions (A)			Filtration control (B)			Method validation (C)		
$V_{c1}$	$V_{c2}$	$\bar{x}$	$V_{c1}$	$V_{c2}$	$\bar{x}$	$V_{c1}$	$V_{c2}$	$\bar{x}$	$V_{c1}$	$V_{c2}$	$\bar{x}$
150	184	167	168	187	177.5	176	170	173	177	193	185
$30 \leq \bar{x} N_{vo} \leq 160$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} A$ is $\geq 0.5 \bar{x} N_{vo}$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} B$ is $\geq 0.5 \bar{x} N_{vo}$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} C$ is $\geq 0.5 \bar{x} N_{vo}$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>		

**Test suspension and test**

Testsuspension:	$N$	$V_{c1}$	$V_{c2}$	$\bar{x}_{wm} = 3.60 \times 10^8$ ; $\log N = 8.56$ $N_0 = N/10$ ; $\log N_0 = 7.56$ $7.17 \leq \log N_0 \leq 7.70$ ; yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>
$N$ and $N_0$	$10^{-6}$	<b>330</b>	<b>330</b>	
	$10^{-7}$	<b>77</b>	<b>54</b>	

**Experimental results**

Concentration of the product %	Dilution step	$V_{c1}$	$V_{c2}$	$N_a$ ( $=\bar{x} \cdot 10$ )	$\log N_a$	$\log R$	Contact time	Conditions
80.0%	-	<14	<14	<140	<2.15	>5.41	15s	Dirty
50.0%	-	<14	<14	<140	<2.15	>5.41	15s	Dirty
10.0%	-	>165	>165	>1650	>3.22	<4.34	15s	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 ( $t=0$ )

$N_a$  = surviving microbes after the test

$R$  = reduction factor ( $R = N_0 / N_a$ ;  $\log R = \log N_0 - \log N_a$ )

The test results apply to the tested sample only.

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N-7/29-V9

### TEST RESULTS (bactericidal suspension test)

EVS-EN 13727:2012+A2:2015; Phase 2, step 1

Membrane filtration method

Product diluent: Distilled water

Appearance of product solutions: Transparent, colourless liquid

Rinsing liquid: tryptone 1 g/l + NaCl 9 g/l

Test organism: *Enterococcus Faecium* VRE ATCC 700221

Test temperature: +20° C; Incubation temperature: +37° C

Interfering substance: 3 g/l bovine albmin + 3 ml/l sheep blood erythrocytes

Nordic Tersus Laboratory LLC.

Date of test: 04.04.2022

Responsible person: Kerda Treksler

### Validation and controls

#### Dirty conditions

Validation suspension $N_{vo}$			Experimental conditions (A)			Filtration control (B)			Method validation (C)		
$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$	$V_{C1}$	$V_{C2}$	$\bar{x}$
44	57	50.5	41	38	39.5	36	39	37.5	36	44	40
$30 \leq \bar{x} N_{vo} \leq 160$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} A$ is $\geq 0.5 \bar{x} N_{vo}$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} B$ is $\geq 0.5 \bar{x} N_{vo}$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>			$\bar{x} C$ is $\geq 0.5 \bar{x} N_{vo}$ ? yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>		

#### Test suspension and test

Testsuspension:	$N$	$V_{C1}$	$V_{C2}$	$\bar{x}_{wm} = 1.75 \times 10^8$ ; $\log N = 8.24$ $N_0 = N/10$ ; $\log N_0 = 7.24$ $7.17 \leq \log N_0 \leq 7.70$ ; yes <input checked="" type="checkbox"/> ; no <input type="checkbox"/>
$N$ and $N_0$	$10^{-6}$	<b>187</b>	<b>165</b>	
	$10^{-7}$	<b>18</b>	<b>15</b>	

#### Experimental results

Concentration of the product %	Dilution step	$V_{C1}$	$V_{C2}$	$N_a$ ( $=\bar{x} \cdot 10$ )	$\log N_a$	$\log R$	Contact time	Conditions
80.0%	-	<14	<14	<140	<2.15	>5.09	15s	Dirty
50.0%	-	18	58	>380	>2.58	<4.66	15s	Dirty
10.0%	-	>165	>165	>1650	>3.22	<4.02	15s	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)

$N_a$  = surviving microbes after the test

$R$  = reduction factor ( $R = N_0 / N_a$ ;  $\log R = \log N_0 - \log N_a$ )

The test results apply to the tested sample only.

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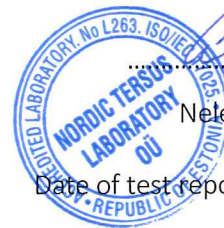
N-7/29-V9

**Interpretation:**

The ready to use product **CHEMISEPT MED** (batch no. 196161220) was tested according to the test method EVS-EN 13727:2012+A2:2015. The test was performed at 20 °C ± 1 °C, under dirty conditions with the contact time of 15 s. The membrane filtration method was used for testing the product's effectiveness against the reference strains: *Pseudomonas aeruginosa* ATCC 15442, *Enterococcus hirae* ATCC 10541, *Staphylococcus aureus* ATCC 6538, *Escherichia coli* K12 NCTC 10538, *MRSA Staphylococcus aureus* ATCC 33592, *Acinetobacter baumannii* ATCC 19606, *Enterococcus Faecium* VRE ATCC 700221 and *Salmonella enterica subsp. Typhimurium* ATCC13311. Under the dirty conditions the 80.0 % solution of the tested sample of the product was effective against all the reference strains tested within 15 s.

**Conclusion:**

The surviving count of bacterial reference strains showed at least 5lg reduction meaning that **according to EVS-EN 13727:2012+A2:2015 under dirty conditions the sample of the ready to use disinfection product CHEMISEPT MED has a bactericidal effect within 15 s.**



  
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Nele Aas-Valleriani  
Microbiologist

Date of test report: 05.04.2022