

Analysis report. ASSESSMENT OF DISINFECTANT ACTIVITY

Laboratory: DMC Research Center SLU

A) Sample information

Product: LIQUIDNATURE

Company: DOMCA SAU

Storage: Fresh and dry place

Active principles: Natural extract

B) Methodology

Standar Method: UNE – EN 1276:2000

Experimental conditions

Concentration (V/V): Liquidnature 10.000 ppm

Contact exposure: 1 y 24 h

Temperature: 20°C ± 1°C

Growth method: plate count

Growth conditions: 36°C ± 1°C

Cultured agar: Cetrimide agar, MacConkey agar, Slanetz-Bartley, Manitol saline, Sabouraud G+, Rose Bengale Agar y broth BHI (Merck, Germany).

Microorganism: *E. coli* DMC02, *P. aeruginosa* CECT 118, *S. aureus* CECT 976, *E. faecalis* ATCC 29212, *L. monocytogenes* CECT 4032, *Salmonella enterica* CECT 1022, *Zygosaccharomyces bailii* CECT 11997, *Candida humicola* DMC H11, *Penicillium expansum* DMC-05, *Fusarium* spp. DMC-03, *Botrytis* spp. DMC-03, *Alternaria* spp. DMC-RGS and *Aspergillus niger* ATCC 16404.

C) Results

Table 1 and 2.

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Table 1. LIQUIDNATURE			Exposure time: 1 hour	Exposure time: 24 hours
Bacteria	microbial suspension (N)		LIQUIDNATURE 10.000 ppm	LIQUIDNATURE 10.000 ppm
<i>Escherichia coli</i> DMC 02	4.5×10^5	N _a R	< 10 > 5,6	< 10 > 5,6
<i>L. monocytogenes</i> CECT 4032	9×10^7	N _a R	< 10 > 7,9	< 10 > 7,9
<i>Salmonella enterica</i> CECT 1022	7×10^5	N _a R	< 10 > 5,8	< 10 > 5,8
<i>Pseudomonas aeruginosa</i> CECT 118	8×10^6	N _a R	< 10 > 6,9	< 10 > 6,9
<i>Staphylococcus aureus</i> CECT 976	4×10^5	N _a R	64 3,8	< 10 > 5,6
<i>Enterococcus faecalis</i> ATCC 29212	3×10^5	N _a R	< 10 > 5,4	< 10 > 5,4

Table 2. LIQUIDNATURE			Exposure time: 1 hour	Exposure time: 24 hours
Molds and yeast	microbial suspension (N)		LIQUIDNATURE 10.000 ppm	LIQUIDNATURE 10.000 ppm
<i>Zygosaccharomyces bailii</i> CECT 11997	1×10^5	N _a R	4.5×10^4 0,3	1×10^2 3
<i>Candida humicola</i> DMC H11	2×10^5	N _a R	6×10^4 0,5	< 10 > 4,3
<i>Penicillium expansum</i> DMC-05	2×10^5	N _a R	1×10^5 0,3	< 10 > 5,3
<i>Fusarium</i> spp. DMC-03	2×10^4	N _a R	1×10^4 0,3	50 2,6
<i>Botrytis</i> spp. DMC-03	1×10^4	N _a R	1×10^4 0	1×10^2 2,0
<i>Alternaria</i> spp. DMC-RGS	2×10^4	N _a R	2×10^3 1,0	$1,2 \times 10^2$ 2,2
<i>Aspergillus niger</i> ATCC 16404	4×10^4	N _a R	2×10^3 1,3	1×10^2 2,6

N: number of bacteria at the beginning (cfu / ml)

N_a: number of bacteria after exposure to products (cfu / ml)

R: Logarithmic reduction (Logarithmic units of cfu / ml)