TRIAL REPORT

IPL Report N° : 151003

Determination of the bactericidal activity of an airborne process of surface disinfection by the NOCOSPRAY/NOCOLYSE duo in compliance with a methodologie inspired by the NF T 72 281 standard vis-à-vis serotype 1 Legionella pneumophila

This trial report concerns only the product (referenced hereunder) submitted to the test.

The methodology was inspired by the NF T 72 281 standard, taking into account the specificities of Legionella which can only be cultivated in charcoal-derived environments (opaque agar).

Principle

The test was conducted according to protocol fixed by NF T 72 281 French standard "Airborne processes of surface disinfection".
Determination of bactericidal activity (September 1986) vis-à-vis serotype 1 Legionella pneumophila.

Identification of the sample

Name and description of the product: NOCOLYSE (lot 05006031) and the NOCOSPRAY nebulizer
Manufacturer : OXY'PHARM – 917, rue Marcel Paul – ZA des Grands Godets –
94508 CHAMPIGNY/MARNE
Date of reception to laboratory: 04/08/2003
Storage conditions: protected from light
Trial period: from 12/09 to 24/09/2003

Experimental conditions

Procedure: sprayed in a directed dispersal
Product: NOCOLYSE (lot 05006031)
- composition: Hydrogen peroxide, catalyst, biosurfactant and excipient
- spray time : 3'50
- quantity used: 64 ml

NOCOSPRAY unit: Timer set in proportion to the volume of the room to cover
(graduated from 25 to 25/m3)

Test room:

Volume: 56.4 m^3

Temperature: 22°C

Relative humidity: 56.4°

Support: watch glass vertically held

Distance between the emission point and the germ carriers: 1 m

Exposure time of supports in the room: 1 hour

Control:

T: control for recovery of bacteria on supports

Or: $T \geq 10^6$

Preliminary test

- Inoculum count by inclusion: non feasible with Legionella
- Inoculum count by filtration: or N2
- Research of an inhibitory effect of milk on agar or: n1 (made by filtration – non feasible under the conditions of the test)
- Research of an inhibitory effect on filtration membrane: n2
- Research of an inhibitory effect due to support in agar: n3 (non feasible)

If n1, n3 $\simeq$ N1 and n2 $\simeq$ N2 experimental conditions are applicable during the assay.

	N2	n1	n2
Legionella pneumophila ATCC 33152 (CIP 103854T)	$1{,}64.10^9$	$2{,}5.10^8$	2.10^8

Effective testing

C: the control batch of colonies retrieved on the supports after 45 minutes of drying at 37°C
n°1 : average retrieval in the liquid of the 3 supports
n°2 : average of the colonies that appeared on the 3 supports (not possible)

	C	n°1	n°2
Legionella pneumophila ATCC 33152 (CIP 103854T)	$1{,}8.10^6$	< 1	Not possible

Expression of the results

d = log C – log (n°1)
d = rate of reduction

Interpretation

Rate of reduction demanded for bacteria:

Legionella pneumophila ATCC 33152 (CIP 103854T) > 5

Conclusion

The NOCOSPRAY/NOCOLYSE duo does have a bactericidal effect vis-à-vis *Legionella pneumophila* ATCC 33152 (CIP 103854T) according to the methodology inspired by the NF T 72 281 standard, after one hour of contact at 22°C.

Lille, 7th October 2003

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