FUMICROB

Disinfectant: dry microdispersion

GENERAL DESCRIPTION

FUMICROB is a disinfectant smoke generator with bactericidal, fungicidal and virucidal activity, developed to satisfy the increasing demand on modern industry.

Thanks to its dry microdiffusion system, FUMICROB carries out a homogeneous dispersion of the active substances throughout the volume to be treated, coming into contact with the microorganisms to be treated and depositing them on the surface.

FUMICROB is a self-generating system that avoids any kind of risk and exposure for the operator, improving benefits to the staff.

COMPOSITION

7 % Orthophenylphenol (OPP); 3.5 % Glutaraldehyde; Excipients q.s.f. 100%

BENEFITS

Easy to use	Efficacy	Security
Ready to Use (RTU)	Preventive and curative treatment.	Self-generating system. NO risks and NO operator exposure
Available in different sizes to treat many different volumes	Homogeneous microdispersion of the active ingredients	NO groundwater contamination. Low environmental impact.
Self-generating system. No special training or equipment needed.	Complete disinfection covering even hard-to-reach surfaces	Lower quantities of active ingredient are required than spraying the same area. Low environmental impact.
Cost saving.	DRY treatment. It does not increase the humidity	NO oxidizing – Can be used in all facilities.
	Effective method to treat both air and surface at the same time	NO residues. Does not stain or damage surfaces.

APPLICATION DOSE

- 1 g/2 m^3 against bacteria, fungi and virus (Human Coronavirus 229E).
- 1 g/1 m^3 against Porcine parvo virus (PPV), influenza virus H5N2, *Human adenovirus (AdV), Murine norovirus (MNV), Bovine enterovirus (ECBO) y Vaccinia virus (MVA).*

SIZES

FUMICROB is available in many sizes for treatments of different volumes.

Sizes (g)	Volume (m^3)	Units per box	Sizes (g)	Volume (m^3)	Units per box
25	25-50	24	400	400-800	6
50	50-100	24	500	500-1000	6
100	100-200	24	600	600-1200	6
200	200-400	12	1000	1000-2000	6
250	250-500	12	2000	2000-4000	4

*The highlighted sizes in grey may be unavailable depending on the product registration in the country.

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ACTIVITY

FUMICROB is a highly versatile disinfectant due to the combination of two reference active substances such as Orthophenylphenol (OPP) and Glutaraldehyde. Orthophenylphenol (OPP) has the broadest spectrum of activity of all fungicides and is a disinfectant for preventive use, while Glutaraldehyde is highly effective antimicrobial agent, being active against a broad range of microorganisms including Gram positive and Gram negative bacteria, fungal and bacterial spores. It is also effective against enveloped viruses (such as Human Coronavirus 229E) and its use has been suggested by the World Health Organization and the European Centre for Disease Prevention and Control to prevent the spread of such disease.

EFFICACY

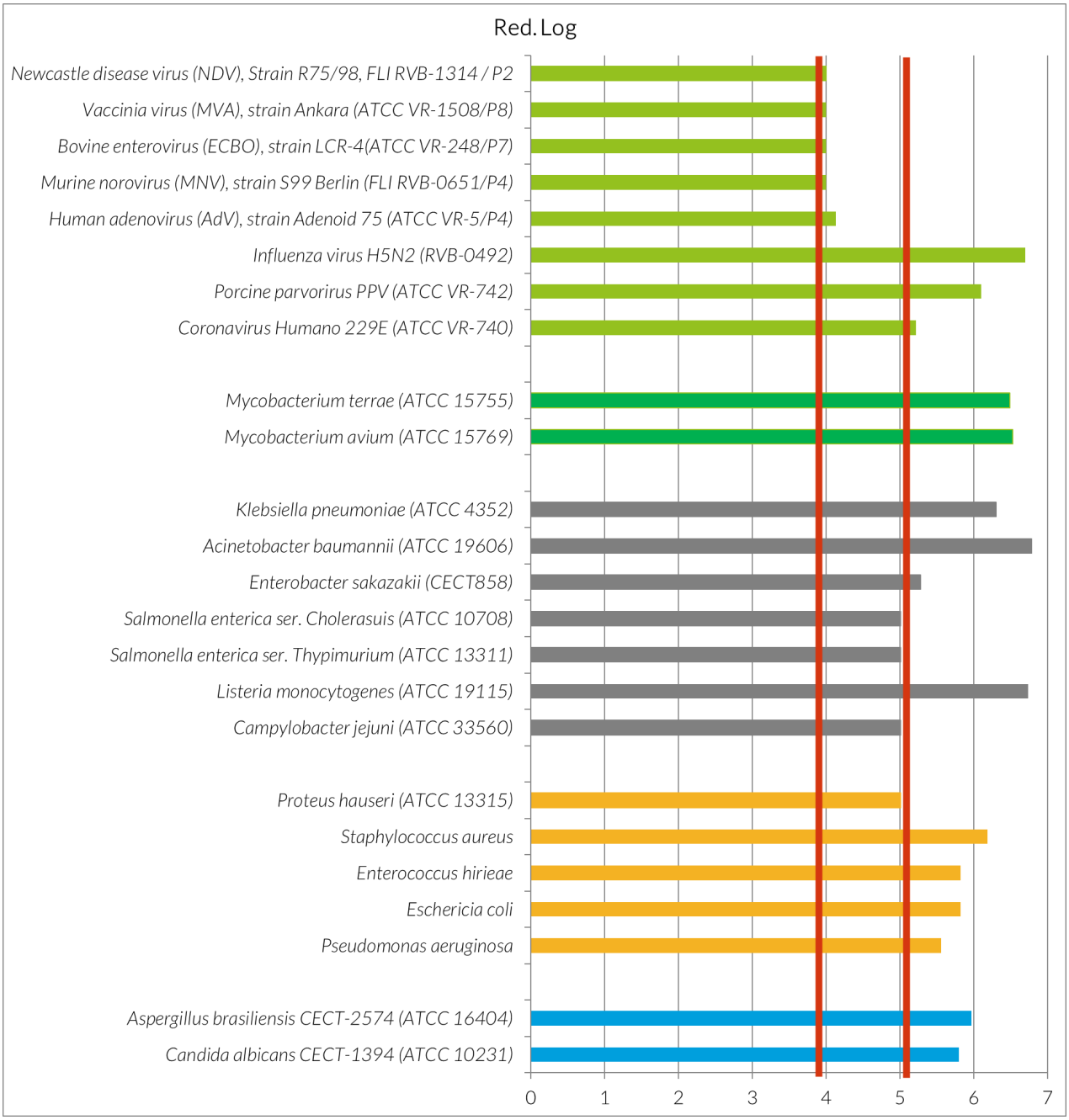
The biocidal efficacy of FUMICROB has been determined according the French Standard AFNOR NF T 72-281 and UNE-EN 17272 standard.

Microorganism	Red. Log	Standard	Experimental Conditions	Application Dose
Candida albicans CECT-1394 (ATCC 10231)	5,8	NFT 72-281	3 g/L BSA	0.5 g/m^3
Aspergillus brasiliensis CECT-2574 (ATCC 16404)	5,97	NFT 72-281	3 g/L BSA	0.5 g/m^3
Pseudomonas aeruginosa	5,56	NFT 72-281	3 g/L BSA	0.5 g/m^3
Eschericia coli	5,82	NFT 72-281	3 g/L BSA	0.5 g/m^3
Enterococcus hirieae	5,82	NFT 72-281	3 g/L BSA	0.5 g/m^3
Staphylococcus aureus	6,19	NFT 72-281	3 g/L BSA	0.5 g/m^3
Proteus hauseri (ATCC 13315)	5,01	EN 17271	3 g/L BSA	0.5 g/m^3
Campylobacter jejuni (ATCC 33560)	5,01	EN 17272	3 g/L BSA	0.5 g/m^3
Listeria monocytogenes (ATCC 19115)	6,74	EN 17272	3 g/L BSA	0.5 g/m^3
Salmonella enterica ser. Thypimurium (ATCC 13311)	5,01	EN 17272	3 g/L BSA	0.5 g/m^3
Salmonella enterica ser. Cholerasuis (ATCC 10708)	5,01	EN 17272	3 g/L BSA	0.5 g/m^3
Enterobacter sakazakii (CECT858)	5,28	EN 1276	3 g/L BSA	0,8 g/m^3
Acinetobacter baumannii (ATCC 19606)	6,78	EN 17272	0,3 g/L BSA	1 g/m^3
Klebsiella pneumoniae (ATCC 4352)	6,3	EN 17272	0,3 g/L BSA	1 g/m^3
Mycobacterium avium (ATCC 15769)	6,53	EN 17272	3 g/L BSA	1 g/m^3
Mycobacterium terrae (ATCC 15755)	6,49	EN 17272	3 g/L BSA	1 g/m^3
Coronavirus Humano 229E (ATCC VR-740)	5,22	NFT 72-281	0,3 g/L BSA	0.5 g/m^3
Porcine parvorirus PPV (ATCC VR-742)	6,1	EN 17272	3 g/L BSA	1 g/m^3
Influenza virus H5N2 (RVB-0492)	6,7	EN 17272	3 g/L BSA	1 g/m^3
Human adenovirus (AdV), strain Adenoid 75 (ATCC VR-5/P4)	4,13	EN 17272	3 g/L BSA	1 g/m^3
Murine norovirus (MNV), strain S99 Berlin (FLI RVB-0651/P4)	4	EN 17272	3 g/L BSA	1 g/m^3
Bovine enterovirus (ECBO), strain LCR-4(ATCC VR-248/P7)	4	EN 17272	3 g/L BSA	1 g/m^3
Vaccinia virus (MVA), strain Ankara (ATCC VR-1508/P8)	4	EN 17272	3 g/L BSA	1 g/m^3
Newcastle disease virus (NDV), Strain R75/98, FLI RVB-1314 / P2	*4*	EN 17272	3 g/L BSA	1 g/m^3

FUMICROB the FIRST smoke generator to demonstrate its efficacy for the disinfection of hatching eggs according to the UNE-EN 17272 standard, under the BPR Guidelines of the European Chemial Agency (ECHA).

The UNE-EN 17272 standard describes a test method for assessing the biocidal activity of airborne surface disinfection processes which, for this type of application, has been adapted to the high level of soiling conditions for PT3 (10 g/l bovine albumin + 10 g/l yeast extract) and to the porosity of the eggshell.

The tested conditions, which are those recommended by the BPR Guide, allow the use of the formulation without the need for cleaning prior to disinfection at an application rate of 1g/m^3.



Also, the combination of OPP and Glutaraldehyde, have shown through literature, efficacy against:

VIRUS	BACTERIA	MOULDS
Avian reovirus	*Aeromonas punctata*	*Candida albicans*
Avian rotavirus	*Bacillus mycoides*	*Candida krusei*
Infectious bronchitis	*Bacillus subtilis*	*Rhodotorula mucilaginosa*
Pseudorabies virus	*Desulfobrivio desulfuricans*	*Rhodotorula rubra*
Transmissible gastroenteritis virus, Purdue strain	*Enterobacter aerogenes*	*Saccharomyces bailii*
	Escherichia coli	*Saccharomyces cerevisiae*
Infectious bursal disease	*Leuconostoc mesenteroides*	*Torula utilis*
	Proteus mirabilis	*Alternaria tenuis*
Avian influenza	*Pseudomonas fluorescens*	*Aspergillus flavus*
Newcastle disease	*Pseudomonas aeruginosa*	*Aspergillus niger*
Porcine reproductive respiratory syndrome	*Staphylococcus aureus*	*Aspergillus Terreus*
	Listeria monocytogenes	*Aspergillus ustus*
Hog Cholera = HC	*Mycobacterium terrae*	*Chaetonium globosum*
Avian laryngotracheitis	*Propionibacterium acnes*	*Microsporium Canis*
Marek's disease virus	*Salmonella choleraesuis*	*Mucur racemusus*
Human Corona virus	*Bacillus cereus*	*Penicillium brevicale*
	Legionella pneumophila	*Rhizopus stolonifer*
	Klebsiella aerogenes	*Thiycophyton mentagrophytes*
	Klebsiella pneumoniae	*Thiycophyton rubrum*
	Desulphovibrio desulphuricans	*Stachybotrys atra*
		Penicillium funiculosum
		Trichoderma viridae

TOXICOLOGICAL INFORMATION

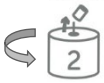
Risk due to ingestion according to the residuality of the product				
FUMICROB OPP 7%*	ADI (mg/kg bw/d)	Exposure (mg/kg bw/d)	Risk (Exposure/ADI)	
Adults	0,4	$8,4x10^{-4}$	<1 = 0,0021	Ok
Children	0,4	$5,1x10^{-3}$	<1 = 0,0130	Ok
**Calculated taking into account that the food was contaminated by the biocide in the industrial plant and then transported and distributed. The food eventually finds its way into a home kitchen and is then eaten by young children (at worst) and adults.*				
FUMICROB Glutaraldehyde 3.5%				
ADI/IDA: Glutaraldehyde is highly reactive with, for example, proteins, as shown in metabolism studies, and no residues remain. Therefore, glutaraldehyde is not expected to be present in foods and an ADI is not derived. ** LMR/MRL: According to *COMMISSION REGULATION (EU) No 37/2010 of 22 December 2009 on pharmacologically active substances and their classification regarding maximum residue limits in foodstuffs of animal origin*, NO LMR/MRL is required and NO target tissue is applicable.				
*** Evaluation of active substance / Assessment Report / Glutaraldehyde Product-type 2, 3, 4, 6, 11, 12 (30/09/2014). Regulation (EU) No 528/2012.*				

FUMICROB is also registered with the National Institute of Toxicology and Forensic Sciences (INTCF). In case of accident, keep the label or container and consult the toxicological information medical service. Phone: +34 (91) 562 04 20. For complete toxicological information and precautions for use, see the product's Safety Data Sheet.

USE INSTRUCTIONS

0. Calculate the number of cans to be used depending on the treated volume.

1. Gently shake the can vertically to loosen the powder stored inside.



2. Remove the plastic lid and the top-hole cap. Gently shake the can laterally and place it on a heat-resistant surface, away from any flammable materials.

3. Activate the product by lightening the cotton wick and leave the premise, closing it completely. In case of the use of several devices, start lighting from the furthest to the closest to the exit door.

4. Leave the treated building closed at least 8 hours.

5. Before re-entering for normal use, the area should be adequately ventilated.

OTHER INFORMATION

Manufactured by **Fumi-Hogar, S.L.**

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https://www.youtube.com/watch?v=Dq1boDkczqE&feature=related

https://www.youtube.com/watch?v=mzqWqZynxC0&feature=related