Evans Vanodine International plc

GLOBAL HYGIENE SOLUTIONS

VANOQUAT

MICROBIOLOGICAL PROFILE

VANOQUAT MICROBIOLOGICAL PROFILE

INTRODUCTION

VANOQUAT is a bactericidal disinfectant with limited virucidal activity (tested against one enveloped virus only). It may be used to disinfect food contact surfaces in food processing applications where good hygiene practices are essential.

For food process applications VANOQUAT may be applied by brushing, soaking or spraying in single or two stage cleaning disinfection programmes to kill pathogenic and spoilage organisms.

VANOQUAT has been tested using European Standard or modified EN test methods to demonstrate bactericidal, fungicidal and virucidal activity. EN tests have been carried out in the UKAS accredited Microbiology Laboratory of Evans Vanodine International PLC or at independent UKAS accredited laboratories.

It has also been tested in an independent laboratory against the fungal pathogen *Fusarium oxysporum,* the cause of banana wilt.

Results are presented in tables following with effective dilution rates expressed as one part of VANOQUAT in 'x' parts of water. (1:x)

PLEASE REFER TO PRODUCT LABEL FOR HOW TO USE AND FOR ALL RECOMMENDED USE DILUTION RATES

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1 BACTERICIDAL ACTIVITY

EN 1276

Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic, and institutional areas.

This method is designed to test bactericidal products specifically for use in the Food and Catering Industry. It may be carried out under dirty (representative of surfaces which are known to or may contain, organic and/or inorganic materials) and clean (representative of surfaces which have received a satisfactory cleaning programme and/or are known to contain minimal levels of organic and/or inorganic materials) conditions.

In order to pass the test at least a 5 log reduction (99.999% reduction) must be achieved with four obligatory bacteria.

Test conditions: 5 minute contact time, 20°C, hard water, dirty conditions		
OBLIGATORY BACTERIA	**DISEASE**	**BACTERICIDAL DILUTION**
Enterococcus hirae	Urinary tract infections	1:800
Escherichia coli	Food poisoning	1:200
Pseudomonas aeruginosa	Opportunistic pathogen wound, burn infections	1:100
Staphylococcus aureus	Boils, wound infections	1:800

ADDITIONAL BACTERIA	**DISEASE**	**BACTERICIDAL DILUTION**
Campylobacter jejunii	Food poisoning	1:800
Escherichia coli "0157"	Food poisoning	1:100
Listeria monocytogenes	Food poisoning	1:800
Salmonella Enteritidis	Food poisoning	1:100
Salmonella typhimurium	Food poisoning	1:100

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2 FUNGICIDAL ACTIVITY

EN 1650

Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity of chemical disinfectants and antiseptics used in veterinary area.

Designed to test fungicidal products specifically for use in the Food and Catering Industry. It is carried out under "dirty" (representative of surfaces which are known to or may contain organic and/or inorganic materials) and "clean" (representative of surfaces which have received a satisfactory cleaning programme and/or are known to contain minimal levels of organic and/or inorganic materials) conditions.

In order to pass the test as a fungicidal disinfectant, at least a 4 log reduction (99.99% reduction) must be achieved with *Aspergillus brasiliensis* and *Candida albicans.*

In order to pass the test as a yeasticidal disinfectant, at least a 4 log reduction must be achieved against *Candida albicans*.

Test conditions: 15 minute contact time, 20°C, hard water, dirty conditions		
FUNGI	**DISEASE**	**FUNGICIDAL DILUTION**
Aspergillus brasiliensis	Aspergillosis	Undiluted
		YEASTICIDAL DILUTION
Candida albicans	Thrush	1:100

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2 FUNGICIDAL ACTIVITY

Modified EN 1657

Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity of chemical disinfectants and antiseptics used in veterinary area.

This European Standard is applicable to products for use in the veterinary field, i.e. in the breeding, husbandry, production, transport and disposal of all animals except when in the food chain following death and entry to the processing industry.

This method was chosen to allow the use of high soiling conditions as specified for the veterinary area i.e. higher soiling than dirty conditions in EN 1276 or EN 1650.

The test was carried out using the fungal pathogen *Fusarium oxysporum* instead of *Aspergillus brasiliensis,* and the temperature of the test was 20℃ instead of 10℃ as specified in the standard.

In order to pass the test at least a 4 log reduction (99.99% reduction) must be achieved.

Modified Test conditions: 30 minute contact time, 20℃, hard water, high soiling conditions		
FUNGI	**DISEASE**	**PASS DILUTION**
Fusarium oxysporum f.sp. cubense	Fusarium wilt of bananas (Panama disease)	1:100

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3 VIRUCIDAL ACTIVITY

Modified EN 14476

Chemical disinfectants and antiseptics – Virucidal quantitative suspension test for chemical disinfectants and antiseptics used in human medicine

EN 14476 was modified to test only Avian Influenza virus.

It was carried out under “clean” (representative of surfaces which have received a satisfactory cleaning programme and/or are known to contain minimal levels of organic and/or inorganic materials) conditions.

The test was carried out using the virus Influenza A H1N1 instead of Poliovirus, Adenovirus or Murine Norovirus, as specified in the standard.

In order to pass the test at least a 4 log reduction (99.99% reduction) must be achieved.

Modified Test conditions: 5 minute contact time, 20°C, clean conditions		
VIRUS	**DISEASE**	**PASS DILUTION**
Influenza A H1N1	Avian Influenza	1:50