



Evans Vanodine International plc
GLOBAL HYGIENE SOLUTIONS

PERADOX



MICROBIOLOGICAL PROFILE

PERADOX MICROBIOLOGICAL PROFILE

INTRODUCTION

PERADOX is a clear colourless liquid terminal disinfectant containing a blend of peracetic acid, hydrogen peroxide and acetic acid.

PERADOX is effective against a wide range of bacteria and fungi encountered in intensive livestock husbandry, milk production/processing and other food and beverage applications.

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

<u>CONTENTS</u>	<u>PAGE</u>
INTRODUCTION	2
<u>BACTERICIDAL ACTIVITY IN SUSPENSION</u>	3-5
<i>Aeromonas salmonicida</i>	
<i>Carnobacterium piscicola</i>	
<i>Enterococcus hirae</i>	
<i>Escherichia coli</i>	
<i>Proteus vulgaris</i>	
<i>Pseudomonas aeruginosa</i>	
<i>Staphylococcus aureus</i>	
<i>Yersinia ruckeri</i>	
<u>BACTERICIDAL ACTIVITY ON SURFACES</u>	6-7
<i>Enterococcus hirae</i>	
<i>Escherichia coli</i>	
<i>Pseudomonas aeruginosa</i>	
<i>Staphylococcus aureus</i>	
<u>FUNGICIDAL ACTIVITY IN SUSPENSION</u>	8
<i>Aspergillus brasiliensis</i>	
<i>Candida albicans</i>	
<u>FUNGICIDAL ACTIVITY ON SURFACES</u>	9
<i>Aspergillus brasiliensis</i>	
<u>VIRUCIDAL ACTIVITY AGAINST BACTERIOPHAGES IN SUSPENSION</u>	
<i>Bacteriophage</i>	10

PERADOX MICROBIOLOGICAL PROFILE

Bactericidal activity in suspension using EN 1276

BACTERIA	DISEASE / INFECTION	Bactericidal dilutions under simulated "clean conditions"
		CONTACT TIME
		5 minutes
<i>Enterococcus hirae</i>	Urinary tract infections	1:1000
<i>Escherichia coli</i>	Food poisoning	1:4000
<i>Pseudomonas aeruginosa</i>	Opportunistic pathogen, wound, burn infections	1:2000
<i>Staphylococcus aureus</i>	Skin, bone and wound infections	1:2000

EUROPEAN STANDARD: 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

Designed to test bactericidal products specifically for use in the Food and Catering Industry. 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.

Test Parameters: 5 minute contact time, 20°C, hard water, clean conditions.
Requirement: ≥5 log reduction ≡ 99.999% reduction.

PERADOX MICROBIOLOGICAL PROFILE

Bactericidal activity in suspension using EN 1656 SHORT CONTACT TIME

BACTERIA	DISEASE / INFECTION	Bactericidal dilutions under simulated "high level soiling"
		CONTACT TIME
		15 seconds
<i>Enterococcus hirae</i>	Urinary tract infections	1:50
<i>Proteus vulgaris</i>	Yolk sac infection in poultry	1:200
<i>Pseudomonas aeruginosa</i>	Opportunistic pathogen, wound, burn infections	1:100
<i>Staphylococcus aureus</i>	Skin, bone and wound infections	1:50

EUROPEAN STANDARD EN 1656:

Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in the veterinary field.

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. Standard contact time is 30 minutes, this test carried out with 15 seconds contact time.

Test parameters: 15 seconds contact time, 10°C, hard water, high level soiling.
Requirement: ≥ 5 log reduction \equiv 99.999% reduction.

PERADOX MICROBIOLOGICAL PROFILE

Bactericidal activity with pathogenic fish bacteria in suspension using EN 1656

BACTERIA	DISEASE / INFECTION	Bactericidal dilutions under simulated "high level soiling"
		CONTACT TIME
		30 minutes
<i>Aeromonas salmonicida</i>	Furunculosis acute to chronic condition, often fatal septicaemia. Haemorrhages may occur at the bases of fins and the abdominal walls, heart and liver.	1:333
<i>Carnobacterium piscicola</i>	A normal component of fish intestinal microflora has also been isolated from severely stressed fishes and has been implicated in a few cases of chronic infection in salmonids, brown bullhead, carp, striped bass, rainbow trout and channel catfish. Also associated with pseudo-kidney disease or lactobacillosis.	1:333
<i>Staphylococcus aureus</i>	Opportunistic pathogen	1:200
<i>Yersinia ruckeri</i>	Yersiniosis, (Enteric Redmouth disease) septicaemia in Salmonid fish.	1:333

EUROPEAN STANDARD EN 1656:

Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in the veterinary field.

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.

Test parameters: 30 minute contact time, 4°C, hard water, high level soiling.
Requirement: ≥5 log reduction ≡ 99.999% reduction.

PERADOX MICROBIOLOGICAL PROFILE

Bactericidal activity on surfaces using EN 13697

BACTERIA	DISEASE / INFECTION	Bactericidal dilutions under simulated "dirty conditions"
		CONTACT TIME
		5 minutes
<i>Enterococcus hirae</i>	Urinary tract infections	1:400
<i>Escherichia coli</i>	Food poisoning	1:1000
<i>Pseudomonas aeruginosa</i>	Opportunistic pathogen, wound, burn infections	1:400
<i>Staphylococcus aureus</i>	Skin, bone and wound infections	1:1000

EUROPEAN STANDARD: EN 13697

Chemical disinfectants and antiseptics – Quantitative non-porous surface test for the evaluation of bactericidal and/or fungicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas. Without mechanical action.

Designed to test bactericidal and fungicidal products on stainless steel surfaces inoculated with bacteria or fungi and an organic interfering substance. It was carried out under "dirty" (representative of surfaces which are known to or may contain organic and/or inorganic materials) conditions.

Test parameters: 5 minute contact time, 20°C, hard water, dirty conditions.

Requirement: ≥ 4 log reduction \equiv 99.99% reduction.

PERADOX MICROBIOLOGICAL PROFILE

Bactericidal activity bacteria on surfaces using EN 14349

BACTERIA	DISEASE / INFECTION	Bactericidal dilutions under simulated "high level soiling"
		CONTACT TIME
		30 minutes
<i>Enterococcus hirae</i>	Urinary tract infections	1:200
<i>Proteus vulgaris</i>	Yolk sac infection in poultry	1:143
<i>Pseudomonas aeruginosa</i>	Opportunistic pathogen, wound, burn infections	1:200
<i>Staphylococcus aureus</i>	Skin, bone and wound infections	1:200

EUROPEAN STANDARD EN 14349:

Chemical disinfectants and antiseptics - Quantitative surface test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in the veterinary field.

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. Test bacteria are mixed with organic material and dried on to stainless steel surfaces before being disinfected with the product.

Test parameters: 30 minute contact time, 4°C, hard water, high level soiling.
Requirement: ≥ 4 log reduction \equiv 99.99% reduction.

PERADOX MICROBIOLOGICAL PROFILE

Fungicidal activity in suspension using

EN 1650

BACTERIA	DISEASE / INFECTION	Fungicidal dilutions under simulated "low level soiling"
		CONTACT TIME
		15 minutes
<i>Candida albicans</i>	Thrush	1:286
<i>Aspergillus brasiliensis</i>	Aspergillosis	1:25

EUROPEAN STANDARD: EN 1650

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

Designed to test fungicidal products specifically for use in the Food and Catering Industry. 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.

Test parameters: 15 minute contact time, 20°C, hard water, low level soiling.
Requirement: ≥ 4 log reduction \equiv 99.99% reduction.

Fungicidal activity in suspension using

EN 1657

BACTERIA	DISEASE / INFECTION	Fungicidal dilutions under simulated "high level soiling"
		CONTACT TIME
		30 minutes
<i>Candida albicans</i>	Thrush	1:167
<i>Aspergillus brasiliensis</i>	Aspergillosis	1:25

EUROPEAN STANDARD EN 1657

Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of fungicidal activity of chemical disinfectants and antiseptics used in veterinary field

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.

Test parameters: 30 minute contact time, 4°C, hard water, high level soiling.
Requirement: ≥ 4 log reduction \equiv 99.99% reduction.

PERADOX MICROBIOLOGICAL PROFILE

Fungicidal activity on a surface using EN 13697

BACTERIA	DISEASE / INFECTION	Fungicidal dilution under simulated "dirty conditions"
		CONTACT TIME
		5 minutes
<i>Aspergillus brasiliensis</i>	Aspergillosis	1:50

EUROPEAN STANDARD: EN 13697

Chemical disinfectants and antiseptics – Quantitative non-porous surface test for the evaluation of bactericidal and/or fungicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas. Without mechanical action.

Designed to test bactericidal and fungicidal products on stainless steel surfaces inoculated with bacteria and an organic interfering substance. It was carried out under "dirty" (representative of surfaces which are known to or may contain organic and/or inorganic materials) conditions.

Test parameters: 5 minute contact time, 20°C, hard water, dirty conditions.

Requirement: ≥ 3 log reduction \equiv 99.9% reduction.

PERADOX MICROBIOLOGICAL PROFILE

Virucidal activity against bacteriophages in suspension using EN 13610

BACTERIOPHAGE	IMPACT	Virucidal against bacteriophages dilution under simulated dirty conditions
		CONTACT TIME
		15 minutes
<i>Lactococcus lactis subsp. lactis</i> bacteriophage POO1	Cause significant economic losses by preventing <i>Lactococcus</i> bacteria from fully metabolizing milk in processing.	1:50
<i>Lactococcus lactis subsp. lactis</i> bacteriophage POO8		1:50

EUROPEAN STANDARD: EN 13610

Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of virucidal activity against bacteriophages of chemical disinfectants used in food and industrial areas.

Test parameters: 15 minute contact time, 20°C, hard water, 1% acidic whey interfering substance

Requirement: ≥ 4 log reduction \equiv 99.99% reduction.