Evans Vanodine
EST. 1919

MICROBIOLOGICAL PROFILE

Trigon® Foam Plus

Bactericidal foaming hand wash

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TRIGON FOAM PLUS MICROBIOLOGICAL PROFILE

INTRODUCTION

TRIGON FOAM PLUS is a highly effective, unperfumed bactericidal hand wash.

TRIGON FOAM PLUS removes visible soiling while simultaneously killing a wide range of bacteria.

TRIGON FOAM PLUS helps to prevent the risk of cross contamination.

TRIGON FOAM PLUS is suitable for areas where food is handled, prepared and served.

TRIGON FOAM PLUS complies with Cosmetic Regulations.

Unperfumed	**Ideal for frequent hand washing**	**After handling food**
Supplied in a sealed cartridge which provides over 550 washes per cartridge		**Following personal hygiene measures**

TRIGON FOAM PLUS - EFFICACY SUMMARY

TRIGON FOAM PLUS has been tested and proven to be effective against a range of micro-organisms. European Standard (EN*) test methods were used to prove efficacy against bacteria.

The UKAS accredited Microbiology Laboratory at Evans Vanodine International plc. (Testing number 1108) performed tests with bacteria.
An independent expert laboratory conducted the practical test EN 1499.

*EN - European Norm
Published in the UK as BS EN by the British Standards Institution.

The following tables include information of relevant, applicable test methods, conditions, contact times and organisms.

TRIGON FOAM PLUS MICROBIOLOGICAL PROFILE

BACTERIAL TEST PROFILE				
ORGANISMS	**TEST METHOD**	**TEMP (°C)**	**CONTACT TIME (MINUTES)**	**SOILING LEVEL**
Enterococcus hirae	EN 1276	20	5	Dirty
Escherichia coli				
Pseudomonas aeruginosa				
Staphylococcus aureus				
Enterococcus hirae			30 seconds	Dirty
Escherichia coli K12				
Pseudomonas aeruginosa				
Staphylococcus aureus				
Enterococcus hirae	EN13727	20	1	Dirty
Escherichia coli K12				
Pseudomonas aeruginosa				
Staphylococcus aureus				

INDEPENDENT PRACTICAL TEST PROFILE				
ORGANISMS	**TEST METHOD**	**TEMP (°C)**	**CONTACT TIME (MINUTES)**	**SOILING LEVEL**
Escherichia coli K12	EN 1499	N/A	1	None

HAND HYGIENE TEST METHODS

Hand disinfectants can be divided into two groups; hygienic and surgical. These can then be further divided into handwashes or handrubs.

A hygienic handwash uses water to wash hands whilst a hygienic handrub involves rubbing hands without the addition of water.

Hand disinfectants can be used in a variety of areas e.g. hospitals, health care institutions, food, beverage, industrial, domestic. There are two types of laboratory test method for disinfectants i.e. suspension methods and surface methods.

The interfering substances used in hand hygiene EN test methods are described as dirty or clean in medical, food, industrial, domestic and institutional areas. They simulate levels of soiling encountered in practical, real-life situations.

EN TEST METHODS

TEST REFERENCE	TEST PASS CRITERIA	TEST TYPE	ORGANISM	TEST PASS CRITERIA
EN 1276	For bactericidal activity in the food, industrial, domestic and institutional areas.	Suspension	Bacteria	≥3 log reduction (handwashes)
EN 1499	A method simulating practical conditions for establishing whether a hygienic handwash product reduces the transmission of transiently contaminating microorganisms when used to wash the artificially contaminated hands of volunteers.	Practical	Bacteria	Better than standard reference product
EN 13727	For bacterial activity in the medical area.	Suspension	Bacteria	≥3 log reduction (hygienic handwashes)

LOG REDUCTION

Products claiming they will kill 99.9% of bacteria sounds extremely efficient, however it does not prove that a product is an effective disinfectant.

In order to demonstrate effectiveness disinfectants should be tested using European Standard Test Methods. Depending on the applicable area and test used, relevant log reductions are specified and must be achieved to claim effectiveness with a test method. This means a reduction in microbial numbers must be seen when compared to the number of organisms at the start of the test or, for surface tests, to a water control performed at the same time. As the numbers are large it is generally accepted that they are expressed as a logarithm. The reduction can be written as either a log value or a percentage i.e. a 5 log reduction is equivalent to a 99.999% reduction, a 3 log reduction is equivalent to 99.9% reduction.

Bacteria are microscopic free living single celled organisms. A surface contaminated with raw meat for example could have millions of bacteria per square centimetre e.g. a surface with 1,000,000 bacteria treated with a product that kills 99.9% of bacteria would still have 1000 bacteria remaining. **If the surface were treated with a product that kills 99.999% of bacteria only 10 bacteria would remain.**

Bacterial growth rates vary depending on the surface, type and degree of soiling, temperature and presence of water. For example E.coli under ideal conditions multiplies every 15 minutes. If conditions are less than ideal (lowering the temperature or drying the surface) the growth rate slows down.

e.g. 1,000 bacteria would increase to 2,000 after 15 minutes, after 30 minutes it would be 4,000 and after 1 hour 16,000 and 256,000 after 2 hours, **10 bacteria would only have multiplied to 2560 in the same 2 hour period.**

The presence of bacteria does not automatically lead to infection, susceptibility to disease and the infectious dose (number of bacteria required to cause infection) are vitally important. Some bacteria will cause an infection with less than 100 cells ingested or introduced into cuts or wounds. For this reason, it is important to reduce numbers of harmful bacteria to the lowest number possible wherever the risk of infection is high.

THE FOLLOWING FIGURES APPLY IF THE NUMBER AT THE START POINT WAS 1,000,000		
LOG REDUCTION	NUMBER REMAINING	PERCENTAGE REDUCTION
1	100,000	90%
2	10,000	99%
3	1,000	99.9%
4	100	99.99%
5	10	99.999%