



**Maintenance Solutions**

## **SUMMARY OF ANTIMICROBIAL ACTIVITY**

### **FOAMICIDE PQ ACID DISINFECTANT CLEANER**

#### **Description**

**FOAMICIDE PQ** is an acid tub and tile disinfectant cleaner especially formulated to kill the germs commonly found in bathroom tubs and showers. This product contains a high level of acid and together with an acid compatible detergent system, facilitates the easy removal of resistant stains and permits disinfectant action. The cationic detergent system of this product inhibits acid corrosion of metal parts found around tubs and showers. It uses the 5th generation quaternary ammonium chlorides as its disinfectant base that has been proven to be highly efficacious with excellent performance in the presence of organic soils.

#### **Regulatory Summary**

<b>EPA Registration No.</b>	10324-160-
<b>Sub-registrant No.</b>	8325
<b>USDA Authorization</b>	None
<b>California Status</b>	None
<b>Canadian PCP#</b>	None
<b>Canadian Din #</b>	None

#### **Physical Properties**

<b>pH of Concentrate</b>	1.0 – 3.0	<b>Flash Point (PMCC)</b>	>200°F
<b>Specific Gravity @ 25°C</b>	1.075	<b>% Quat (mol. wt.360.5)</b>	0.5-0.555 (5,000-5,550ppm)
<b>Pounds per gallon @ 25°C</b>	8.966	<b>% Volatile</b>	98+

**EFFICACY**

**Hospital Disinfection**

This product is bactericidal according to the AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum (5,000 ppm active). Treated surfaces must remain wet for 10 minutes

(Testing is performed per the AOAC UDT/GST method (DIS/TSS-1). Sixty carriers are required on 3 separate lots, one of which must be > 60 days old against *Pseudomonas aeruginosa*, *Salmonella enterica* and *Staphylococcus aureus*. Killing of 59 out of 60 carriers is required (total carriers = 540).)

Organism	Carrier Population	Sample	# Carriers	# Positive
<i>Pseudomonas aeruginosa</i> ATCC #15442	2.3 X 10 <sup>6</sup> CFU/Carrier	A (60 Days Old)	60	0/60
	1.7 X 10 <sup>6</sup> CFU/Carrier	B	60	0/60
	1.3 X 10 <sup>6</sup> CFU/Carrier	C	60	1/60
<i>Salmonella enterica</i> ATCC #10708	1.1 X 10 <sup>5</sup> CFU/Carrier	A (60 Days Old)	60	0/60
	1.5 X 10 <sup>6</sup> CFU/Carrier	B	60	0/60
	2.1 X 10 <sup>6</sup> CFU/Carrier	C	60	0/60
<i>Staphylococcus aureus</i> ATCC #6538	1.5 X 10 <sup>6</sup> CFU/Carrier	A (60 Days Old)	60	0/60
	1.4 X 10 <sup>6</sup> CFU/Carrier	B	60	0/60
	4.7 X 10 <sup>5</sup> CFU/Carrier	C	60	0/60

**Supplemental Organisms**

(Testing is performed per the AOAC UDT/GST method. Ten carriers are required on 2 separate lots against each supplemental organism. Killing of 10 out of 10 carriers is required (total carriers = 20).)

Organism	Carrier Population	Sample	# Carriers	# Positive
<i>Corynebacterium ammoniagenes</i> ATCC 6872	1.8 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Enterobacter aerogenes</i> ATCC 13048	4.1 X 10 <sup>6</sup> CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Escherichia coli</i> ATCC 11229	3.2 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Klebsiella pneumoniae</i> ATCC 4352	9.9 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Proteus mirabilis</i> ATCC 9240	1.9 X 10 <sup>6</sup> CFU/Carrier	A	20	0/20
		B	20	0/20
<i>Salmonella typhi</i> ATCC 6539	5.1 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Serratia marcescens</i> ATCC 14756	1.5 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Shigella dysenteriae</i> ATCC 11835	5.45 X 10 <sup>4</sup> CFU/Carrier	A	10	0/10
		B	10	0/10
Community Acquired Methicillin Resistant <i>Staphylococcus aureus</i> (CA-MRSA 300) (Genotype 300)	2.77 X 10 <sup>5</sup> CFU/Carrier	A	10	0/10
		B	10	0/10
<i>Streptococcus pyogenes</i> ATCC 19615	3.35 X 10 <sup>6</sup> CFU/Carrier	A	10	0/10
		B	10	0/10

**Virucidal Performance:** This product was evaluated in the presence of 5% serum (5,000 ppm quat active), with a 10 minute contact time and found to be effective against the following viruses on hard nonporous environmental surfaces.

Organism	Dried Virus Control;	Sample	Result	Log Reduction
Herpes Simplex Type 1	5.0 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥3.5 Log <sub>10</sub>
		B	≤1.5 Log <sub>10</sub>	≥3.5 Log <sub>10</sub>
Herpes Simplex Type 2	5.0 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥3.5 Log <sub>10</sub>
		B	≤1.5 Log <sub>10</sub>	≥3.5 Log <sub>10</sub>
Human Immunodeficiency Virus type 1 (HIV 1)	6.5 Log <sub>10</sub>	A	≤2.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
		B	≤2.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
Influenza A (H1N1) virus	4.5 Log <sub>10</sub>	A	≤0.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
		B	≤0.5 Log <sub>10</sub>	≥4.0 Log <sub>10</sub>
Norovirus (Norwalk-like virus) (Feline Calicivirus)	5.75 Log <sub>10</sub>	A	≤1.5 Log <sub>10</sub>	≥4.25 Log <sub>10</sub>
		B	≤1.5 Log <sub>10</sub>	≥4.25 Log <sub>10</sub>

## Fungicidal Performance

**Test Method:** Testing is performed per the AOAC fungicidal method (DIS/TSS-6). Two separate lots are tested against Trichophyton mentagrophytes in a suspension test. Killing of all fungal spores in 10 minutes is required.

Organism	ATCC#	Use-Dilution Concentration	Hard Water Condition	Replicates	Results
Trichophyton mentagrophytes	9533	Ready to Use	N/A	10, 10	0/10, 0/10

**Conclusion:** All lots of **Foamicide PQ** effectively killed Trichophyton mentagrophytes as specified in the test performance standards.

## Summary of Antimicrobial Efficacy - Etiology<sup>1</sup>

Pathogenic Microorganism	Description
Pseudomonas aeruginosa	Gram negative bacteria identified as a major cause of hospital acquired (nosocomial) infections. Causes wound infections (especially burn), meningitis, pneumonia and eye infections. Required for Hospital Disinfectants.
Staphylococcus aureus	Gram positive bacteria identified as a major cause of hospital acquired (nosocomial) infections. Colonizes food and secretes enterotoxins which cause food poisoning after ingestion. Causes wound infections, septicemia, endocarditis, meningitis, osteomyelitis and pneumonia. Required for Hospital Disinfectants.
Enterobacter aerogenes	Gram negative bacteria spread by anal/oral route of infection. Associated with bacteremia, respiratory, wound and urinary tract infections.
Escherichia coli	Gram negative bacteria spread by anal/oral route of infection, resulting in diarrhea outbreaks. Associated with urinary tract infections and bacteremia.
Klebsiella pneumoniae	Gram negative bacteria associated with severe pneumonia, bacteremia and urinary tract infections.
Salmonella enterica	Gram negative (rod shape) bacteria associated with acute gastroenteritis and diarrhea.
Salmonella typhi	Gram negative (rod shape) bacteria associated with acute gastroenteritis and diarrhea, the causative agent for typhoid fever.

Shigella dysenteriae	Gram negative bacteria directly spread by anal/oral route of infection; indirectly (including food, hands, flies) spread by contaminated food and inanimate objects resulting in bacillary dysentery.
Herpes Simplex Type 1	Lipophilic (enveloped) DNA virus may result in oral mucocutaneous lesions. Associated with most orofacial herpes and HSV encephalitis.
HIV-1 (AIDS Virus)	Lipophilic (enveloped) RNA retrovirus. Human Immunodeficiency Virus. Known to be the etiologic agent of Acquired Immunodeficiency Syndrome (AIDS).