# Nobact

## Instant Foam Hand Sanitizer

Patent Pending Nobact™ Instant Foaming Hand Sanitizer produces a fast drying, non-sticky foam that contains unique non-drying, conditioning and moisturizing ingredients. **Nobact™ is an alcohol-free formulation.** It leaves the skin with a soft, silky afterfeel, and does not contain polymer thickeners or silicones.

Nobact™ Instant Foam Hand Sanitizer is based on the active ingredient Benzalkonium Chloride. The efficacy of this product has been confirmed to reduce S. aureus 99.999% in as little as 15 seconds.

Benzalkonium chloride based Hand Sanitizers have distinct advantages over gelled alcohol hand sanitizers. While both product forms are fast acting and allow for use without water or towels, benzalkonium chloride based products are non-flammable, less drying to skin, and will not stain clothing. Published studies report that gelled alcohol gel hand sanitizers actually make the skin dirtier, not cleaner due to removal of protective natural skin oils and entrapment of dead skin cells by the polymer thickeners used in the gelled alcohol products. Benzalkonium chloride is the only quat active ingredient with a history of use in leave-on, FDA Monograph anti-bacterial skin treatment products.

#### Typical Properties

 Physical form
 Clear light amber liquid

 Benzalkonium chloride, active %
 0.1

 Assay (Epton), meq/mg
 6.1 - 6.6

 pH
 5.5 - 7.0

 Specific Gravity @25 C
 1.00 0.02

 Flash point (PMCC)
 >200°F (>93°C)

#### Handling Information

Refer to and follow the guidelines in the Material Safety Data Sheet (MSDS) available from Pharmacal Research Labs. for information on the safe use, handling and disposal of this product



### Nobact<sup>™</sup> Final Summary Report Time Kill Test Assay for Antimicrobial Agents

Test Organism	Exposure Time	Test Population Control CFU/mL*	Number of Survivors CFU/mL*	Log <sub>10</sub> Reduction	Percent Reduction
Staphylococcus aureus	15 seconds	5.8 x 10 <sup>6</sup>	1x10 <sup>1</sup>	6	>99.999%
	30 seconds		<2	>6.5	>99.9999%
	45 seconds		<2	>6.5	>99.9999%
	60 seconds		<2	>6.5	>99.9999%

Test Organism	Exposure Time	Test Population Control (CFU/mL)*	Number of Survivors (CFU/mL)*	Log <sub>10</sub> Reduction	Percent Reduction
Clostridium difficile	15 seconds	3.4 x 10 <sup>6</sup>	<2	>6.2	>99.9999%
Enterococcus faecalis Vancomycin Resistant	15 seconds	1.12 x 10 <sup>6</sup>	3.2 x 10 <sup>1</sup>	4.54	99.999%
Escherichia coli	15 seconds	3.8 x 10 <sup>6</sup>	4	6.0	99.999%
Escherichia coli O157:H7	15 seconds	1.26 x 10 <sup>6</sup>	<2	>5.8	>99.999%
Klebsiella pneumoniae	15 seconds	1.10 x 10 <sup>6</sup>	2	5.7	99.999%
Pseudomonas aeruginosa	15 seconds	3.5 x 10 <sup>6</sup>	<2	>6.2	>99.9999%
Salmonella typhi	15 seconds	1.27 x 10 <sup>6</sup>	2	5.8	99.999%
Serratia marcescens	15 seconds	1.81 x 10 <sup>6</sup>	7.2 x 10 <sup>1</sup>	4.40	99.99%
Streptococcus pneumoniae	15 seconds	1.43 x 10 <sup>5</sup>	2	4.85	99.99%
Streptococcus pyogenes	15 seconds	1.77 x 10 <sup>6</sup>	<2	>5.9	>99.999%

<sup>\*</sup> CFU/mL = Colony Forming Units per mL of test mixture