



Below is information from a radio Show out of Boston that features both alcohol and alcohol free hand sanitizers:

- > · Swine influenza H1N1 first found in the US in early 1930s  
It has resurface many times since that first outbreak it is estimated that 50% of our countries pigs have been exposed or carry H1N1
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- > · Antimicrobial hand products cannot make claims against viruses. The claims made is that it reduces bacteria on the skin. Reduces is not 100% kill. Viruses by both EPA and FDA have to be killed completely.
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- > · Bacteria can live on the surface of a hand or environmental surface. Viruses have to live inside a host. In this case the human or the pig. They can mutate. That is why 100% kill is required.
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- > · Antimicrobials cannot make the world safe. They can only make it safer.
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- > · Benzalkonium chloride is an Antimicrobial used in Hand Sanitizers and also found in well-known products such as Benzocaine.
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- > · Benzalkonium chloride belongs to a group of ingredients called "quats."
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- > · Quats are commonly found as skin care ingredients in Hair Conditioners and Skin Lotions. Quats are used as cleansing and grease-cutting detergent ingredients, and fabric softeners. Quats are also used as Swimming Pool algaecides and preservatives in Eye Drops.
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- > · On a hard surface it takes about 400 ppm (or 0.04%) Quat to kill H1N1. Our Quat-based Hand Sanitizer product has 3 times that level. We can't say on the label, of a hand product, it kills H1N1 but if 400 works on a environmental surface 3 times sure doesn't hurt.
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- > · It takes 62% alcohol for Alcohol-based products to be effective as Hand Sanitizers.
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- > · Quats are effective against Influenza virus. All of our disinfectant labels list effectiveness against some sort of influenza. We have many that specifically list H1N1.
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- > · Influenza is spread by either a person sneezing or coughing directly on a person or more often by hand to mouth transfer...hands touch a unknown contaminated surface and we transfer it to our mouth. How often do you touch your face or your mouth?
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- > · The use of Quat-based hand sanitizers has been demonstrated to reduce Elementary School illness absenteeism versus hand washing alone.
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- > · Alcohol...works. It has been around from the beginning. Quat base hand soap just works better. Alcohol works by drying up the cell. It needs to have contact time to do that. Once it is gone it is gone. Did it have enough contact time to work????? Typically we talk about 15-30 seconds for a product to work effectively.
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- > · Quat works by attaching directly to the cell and it "dissolves" the cell wall. It is not a poison. It is a surfactant.



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- > · Quats are antimicrobials, not antibiotics. Pathogens do not develop
- > resistance to antimicrobials because antimicrobials are "non-specific."
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- > · Alcohol has to have a carrier or it runs off your hands. Commonly
- > the product is thickened. These thickeners are left on your hands.
- > They can trap dead bacteria in the pores of your hand. Dead bacteria
- > is a food source for live bacteria. Your hands may end up more
- > contaminated than what you started with. This is no fault to the
- > alcohol but the thickeners may decrease the action of the product overall.
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- > · Published studies demonstrate that alcohol-based hand sanitizers
- > increase skin susceptibility to infection, that can increase the
- > chances of spreading disease causing microorganisms among patients.
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- > · Alcohol dries out your skin much the same as dries out bacteria
- > cells. Quats can be formulated to be effective and make the skin feel
- > good.
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- > · Quats are non-flammable.
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- > · Quats are used in hair care and skin conditioners of all types.
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- > · In published studies comparing Quat-based hand sanitizers versus
- > Alcohol-based hand sanitizers (The Journal of Hygiene, Association of
- > Operating Room Nurses Journal), it has been demonstrated that:
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- > Benzalkonium chloride-based hand sanitizers had a greater sustained
- > antibacterial activity than alcohol-based hand sanitizers.
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- > Alcohol-based hand sanitizers became less effective with repeated use
- > and irritated the hands of subjects.
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- > Benzalkonium chloride-based hand sanitizers became more effective
- > without irritation after repeated use.