

2020 COMPANY CAPABILITIES



Vertellus Medical, Health, and Consumer Care

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While the wipes market continues to grow in the personal care segment, the move to more environmentally friendly systems continues. Some changes, like the increased use of cellulosic based wipes, present new preservation challenges. At the same time, global regulatory changes limit the preservatives available to formulators. To combat preservation issues,



Vertellus offers Cetylpyridium Chloride (CPC) to personal care and cosmetic formulators as a versatile, safe and cost-effective preservative with an excellent safety and environmental profile.

Due to its excellent safety profile, CPC has been used for decades in US FDA approved oral care applications to combat plaque and gingivitis in the oral cavity. CPC is recognized to be effective at concentrations of 0.05% to 0.1% against *Streptococcus mutans* and has also demonstrated similar success against other varieties of Gram-positive bacteria. CPC is also approved by the USDA for use in the food industry as a poultry wash.

Cetylpyridinium Chloride is colorless, odorless, and formaldehyde free. CPC exhibits broad anti-microbial efficacy against Gram positive and Gram negative bacteria, enveloped viruses and mold. Using various PCPC/CTFA Test Methods, CPC has been found to be effective against all of the common micro-organisms tested including: *S. aureus*, *E. coli*, *P. aeruginosa*, *C. albicans*, and *A. brasiliensis*. CPC has also proven effective at inhibiting various strains of *Corynebacterium*, partially responsible for odor production on the skin.



CPC is an excellent preservative alternative to formaldehyde donors, such as phenoxyethanol, isothiazolinones, alcohols and parabens. It is effective over a broad pH range (4-10) and therefore its efficacy is not pH dependent. CPC is very water soluble and well suited for aqueous based personal care formulas, allowing for crystal clear formulations. In most water-based systems, very low use levels are needed (0.1-0.2%). For systems known to have raw materials of natural origin or prone to higher counts of contamination, higher amounts of CPC >0.1% may be required. For anionic surfactant systems, adding an anti-fungal may be necessary. There is improved performance with EDTA or other chelating agents.

Cetylpyridinium Chloride (CPC)

Used as an oral health care antimicrobial product, CPC has shown reduction in bacterial oral plaque that contributes to hospital acquired pneumonia (VAP). Comprehensive oral care procedures can address bacterial colonization of the oral cavity, dental plaque, and aspiration with the assistance of CPC

