



# Examining the efficacy and shelf life of a peracetic acid based cleaner disinfectant

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## Background

- ❖ PeridoxRTU is an EPA-registered peracetic acid-based cleaner and disinfectant with a *Clostridium difficile* surface sporicidal claim
- ❖ The active product is generated by mixing 2 chemical components and comes pre-mixed (ready to use)
- ❖ Peracetic acid-based disinfectants may be less corrosive to surfaces and less irritating to personnel than some other products
- ❖ Peracetic acid based disinfectants historically have had challenges with chemical stability and short shelf life after activation
- ❖ Here, we evaluated the duration of sporicidal activity for PeridoxRTU after activation

## Methods

- ❖ We measured concentrations of available peracetic acid in parts per million (PPM) using a peracetic acid titration kit in newly opened bottles at serial time points over a 60 day period
- ❖ For comparison, concentrations of peracetic acid were measured in another commercial peracetic acid-based disinfectant
- ❖ Activity of the product against *C. difficile* spores and methicillin-resistant *Staphylococcus aureus* (MRSA) was tested using a standard ASTM method (E2197)
- ❖ Fabric compatibility was assessed by applying PeridoxRTU and 10% sodium hypochlorite to swatches of fabric frequently found in a healthcare setting

Figure 1. Sporidical efficacy and available peracetic acid of PeridoxRTU over 60 days

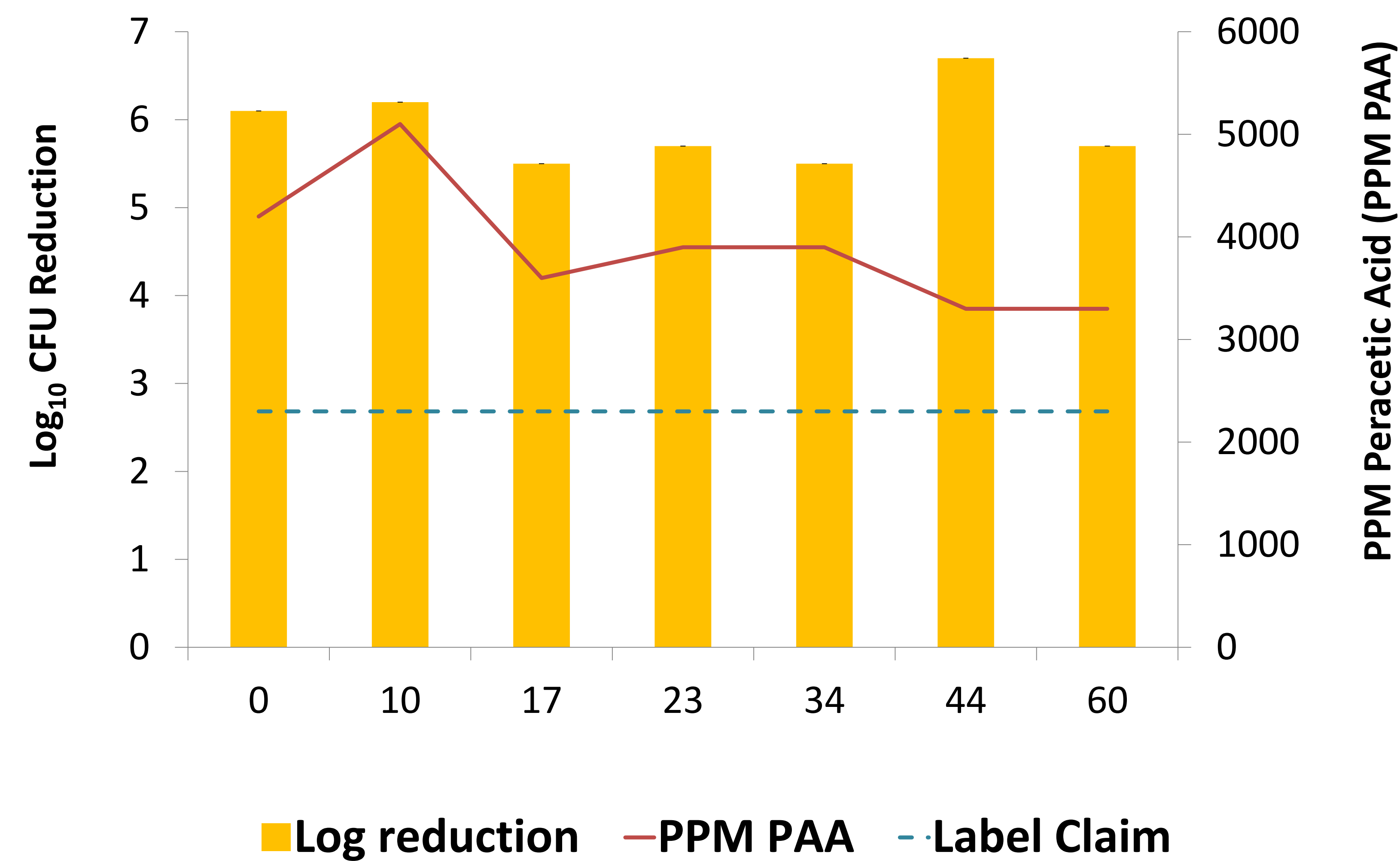


Figure 2. Fabric compatibility of PeridoxRTU vs. 10% sodium hypochlorite on swatches of fabric



## Results

- ❖ PeridoxRTU exhibited persistent maximum sporicidal efficacy (no viable spores recovered) of *Clostridium difficile* spores over 60 days of testing after opening of the bottles (Figure 1)
- ❖ The peracetic acid concentration remained at greater than or equal to 2300 PPM over 60 days consistent with label claims (Figure 1)
- ❖ PeridoxRTU did not exhibit any staining on healthcare associated fabrics (Figure 2)

## Conclusions

- ❖ PeridoxRTU consistently met sporicidal and peracetic acid concentration label claims over 60 days of testing
- ❖ PeridoxRTU may be an effective surface sporicidal disinfectant for use in healthcare settings

## References

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❖ PeridoxRTU(R) provided by Contec for testing