

A Solution for CHG Stains

Magi-Clens™ eliminates a common stain in healthcare linens

Chlorhexidine gluconate or CHG was first introduced as a topical antiseptic and disinfectant in the United Kingdom in 1954. It wasn't commercially available in the United States until the early 1970s, when it quickly found more uses, including antiseptic mouth rinses, pre-operative skin preparation sponges and cloths and integration into medical device materials. With the increased popularity of CHG-based products, healthcare laundries also began to notice an increase in permanent stains on their textiles. These stains were light orange to dark brown in color and could not be removed with traditional stain-removal treatments. Even more discouraging was that the launderer's most reliable stain-removing compound—chlorine bleach—not only didn't remove the stain, but made the stain appear darker!

CHG—TEXTILE SIDE EFFECTS

Fast forward 40 years and the infamous, permanent brown stains are still a problem, but more is known about these particular stains. First, the increase in brown stains was linked to CHG-based antiseptic and topical products coming into contact with textiles, which are then laundered with chlorine bleach as the stain remover. Next, there was an ever-increasing spectrum of products used in hospitals and healthcare facilities that contained CHG which includes (but is not limited to) Hibiclens, Savinox Plus, Surgiprep-CHX, Hibiscrub, Dextrin, Hexigard 4 and Dermol. Also, it was eventually discovered that the use of oxygen-based stain removers would not permanently set the CHG stains and would render the stains colorless; however, the stain was not completely removed but merely decolorized, as any CHG-stain that was 'removed' with oxygen bleach would reappear once it was exposed to chlorine bleach. These stains have been dubbed the 'invisible CHG stains,' as a seemingly

off-white, stain-free textile can be laundered on a chlorine-bleach reclaim wash formula to whiten the textile, and it comes out with several brown, permanent CHG stains that were not there before! Most laundries have thrown in the proverbial towel and have accepted the fact that laundering healthcare textiles with chlorine bleach invariably leads to CHG-stained linen, greater linen ragout and higher replacement costs.

ANATOMY OF A SOLUTION

But Gurtler Industries has introduced a new product that will make permanent CHG stains a problem of the past.

Magi-Clens is a patent-pending, liquid stain treatment that is applied in the first operation of the wash cycle. The pre-wash with Magi-Clens removes the CHG stains, allowing the textiles to be laundered with chlorine bleach and without the fear of creating permanent brown stains. It will not remove a CHG stain that has been previously set with chlorine, but will remove CHG stains from textiles that have not been laundered with chlorine bleach. When used at a laundry where oxygen bleach is used for normal laundering and chlorine bleach for reclaim wash formulas, Magi-Clens will prevent the 'invisible' CHG stains from appearing after a stain reclaim wash.

Mark Lennart and Mark Smoyer both evaluated Magi-Clens and see the advantages for the healthcare laundry market. Lennart is the general manager of Hospital Laundry Services, a 10+ million lb. per year healthcare laundry in Ft. Wayne, IN. The laundry uses Milnor PulseFlow® continuous batch washers and an assortment of conventional washer/extractors. Smoyer is the general manager of Shared Hospital Services, another 10+ million lb. per year healthcare laundry in Portsmouth, VA.

This facility washes with Kannegiesser PowerTrans continuous batch washers. Both plants participated in trials of Magi-Clens during its introduction to the market.

"I think there is an advantage to having the option to launder healthcare textiles with chlorine bleach," says Lennart.

The U.S. Centers for Disease Control and Prevention (CDC) and the Centers for Medicare and Medicaid Services (CMS) both include specific laundry recommendations for chlorine bleach use, whereas nonchlorine bleach and low-temperature washing processes are not as well defined, even if adequate for healthcare laundering. Regardless of the oxidizer and wash process, there is a traditional bias towards the use of chlorine. But there's an even greater predisposition for everyone handling textiles; they must be clean and stain free!

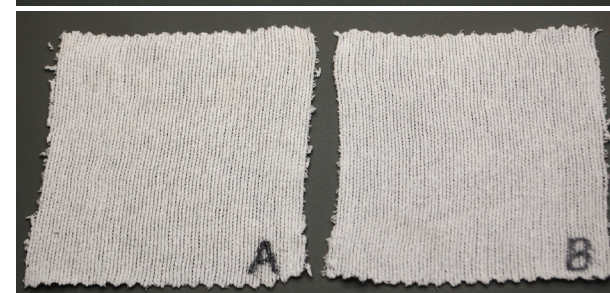
Mark Smoyer saw another benefit to the use of Magi-Clens and chlorine bleach in reduced energy costs.

"There are real savings in reducing the overall temperature profile on a continuous batch washer," said Smoyer.

"We found our linen to look just as white and as stain free with the Magi-Clens and chlorine process compared to our oxygen bleaching process. Being able to reduce our hot water demand and dial back our boiler at the same time is a great advantage."

SUCCESS FUELED BY INNOVATION

As one of the laundry industry's age-old problems is laid to rest, the future of laundering hasn't been brighter—both in terms of additional business opportunities for laundry operators and the elimination of a characteristic and troublesome stain. Magi-Clens is just one example of Gurtler technology that can solve an industrywide problem and advance the science of textile processing. While the events of 1954 may not be easy to remember, the Magi-Clens solution to eliminating CHG stains while bleaching with chlorine will not soon be forgotten! ■



Sample swatches were stained with CHG (top) before laundering in a typical alkaline detergent wash (Sample A) and a Magi-Clens pre-wash cycle (Sample B) (middle). Both were then washed in chlorine bleach. The "invisible" CHG stain returns in Sample A, but not with Magi-Clens Sample B (bottom).



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