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BEYOND CLEAN

CRYPTON® FABRIC INTELLIGENCE

A Normal Performance Fabric Just Won't Cut It in the New Normal

Crypton goes beyond clean.

Clean is good but disinfected is better

Crypton is committed to providing best practices for cleaning and maintaining its fabrics. This document outlines how common disinfectants affect Crypton. Specifically addressing the impact of disinfectants on Crypton's repellency, stain protection, liquid barrier, and color retention.

It is important to note that, in addition to the active ingredient, many disinfectants contain surfactants (surface-acting agents) with wide-ranging pH levels. Very low or very high pH can adversely impact fabrics. While this document provides general guidance on the effects of active ingredients in disinfectants, it is not all-encompassing.

Methodology

- All tests were conducted on our Sky pattern, a 100% polyester piece dyed fabric.
- For each disinfectant, the assessment was based on ten repeated exposures according to the Association for Contract Textiles' (ACT's) test method.
- The disinfectants selected for evaluation contain some of the most common active substances that appear on ECHA's list of approved active substances and the US EPA's List N: Disinfectants for Use Against SARS-CoV-2 (COVID-19).

Active ingredients that were assessed for their impact on Crypton include

- Quaternary Ammonium Compounds (most important and abundant class)
- Hydrogen Peroxide
- Peracetic Acid
- Phenolic Compounds
- Alcohol
- Sodium Hypochlorite

Summary

Crypton is extremely resistant to repeated exposures of harsh cleaners and disinfectants. Properties are maintained or recovered by rinsing with warm water. Because of its liquid barrier, Crypton can be thoroughly rinsed without trapping contaminants in seat cushions. Peracetic acid is a preferred option because less rinsing is required, and bleach is not recommended. If bleach must be used, it should only be used on polyester (not cellulosics) under prescribed conditions (see Detailed effects).

Detailed effects of disinfectants on Crypton

Active Disinfectant Ingredient	*Alcohol*	*Hydrogen Peroxide*	*Peracetic Acid*	*Peracetic Acid / Octanoic Acid*	*Phenolic*	*Quaternary Ammonium*	*Sodium Hypochlorite*
Tradename (ex.)	91% Isopropyl Alcohol	Oxivir Tb	Oxycide Daily Disinfectant Cleaner	Virasept	Wex-cide 128	Lysol	Clorox
Supplier	generic	Diversey	Ecolab	Ecolab	Wexford Labs	Reckitt Benckiser	Procter & Gamble
Color Retention	No impact	No impact	No impact	No impact	No impact	No impact	Discoloration
Liquid Barrier	No impact	No impact	No impact	No impact	No impact	No impact	Slight impact
Stain Resistance	No impact	No impact	No impact	No impact	No impact	No impact	No impact
Repellency	No impact	Slight impact	No impact	No impact	No impact	Slight impact	No impact

- **Repellency and rinsing**
  Rinsing is required in most cases to restore repellent protection since most disinfectants act like soap. Soap does not damage Crypton's fibers but, until it is removed, prevents repellency.

  Oxivir Tb (with hydrogen peroxide) and Lysol (with quaternary ammonium compound) had a slight impact on repellency following rinsing. Otherwise, repellency was fully maintained after rinsing with water.

  Rinsing with warm water can be more effective than a cold-water rinse.

- **Stain protection**
  Crypton exhibits durable stain protection, regardless of the type of disinfectant.
  One of the most favorable disinfectants, requiring the least rinsing, included Oxycide Daily (with peracetic acid).

- **Liquid barrier**
  Crypton's liquid barrier allows for even the most aggressive rinsing, preventing liquids and stains from entering the cushion. Once soap is removed, repellency and stain protection are restored.

  Bleach, when applied ten times to the same area, can be slightly detrimental to the liquid barrier, so we recommend against its use. The barrier property was fully retained following exposure to other disinfectants.

- **Color retention**
  Bleach (with sodium hypochlorite) discolored the fabric slightly. As the concentration increases, so does the degree of discoloration. Crypton recommends against using bleach on any fabric because of the potential for color loss. If bleach is the only disinfectant available, the concentration of bleach to water should not exceed 10%, and the fabric must be thoroughly rinsed no longer than ten minutes after application.

  Polyester has better color retention than cellulosic fibers, such as cotton and viscose. For public settings that use bleach, we recommend against the use of cellulosic fibers.