

SURFACE COMPATIBILITY OF BERKSHIRE VERSAHOCL® VS. TRADITIONAL DISINFECTANTS

Key Findings from Cleanroom Metal Surface Testing

* Study Purpose & Background:

VersaHOCl® aims to balance antimicrobial efficacy with surface safety. Traditional disinfectants can damage cleanroom metals, increasing costs and contamination risk.

* Materials & Methods:

SURFACES TESTED

- Zinc Galvanized Steel
- 6061 Aluminum
- 304 Stainless Steel

DISINFECTANTS TESTED

- Berkshire VersaHOCl®
- Peracetic acid 0.08%/Hydrogen peroxide 1% RTU
- Sodium hypochlorite (Bleach) 0.525% RTU



KEY INSIGHTS:



SUPERIOR SURFACE COMPATIBILITY:

VersaHOCl® exhibited minimal interaction with galvanized steel, stainless steel, and aluminum, causing only slight discoloration under extreme conditions and no significant effects with repeated use.



ADVERSE EFFECTS OF BLEACH:

Sodium hypochlorite (bleach) caused moderate discoloration and corrosion on galvanized steel, rusting and corrosion on stainless steel, and significant corrosion on aluminum under extreme conditions; it also caused rouging and discoloration with continued use.



SEVERE DAMAGE CAUSED BY PERACETIC ACID/HYDROGEN PEROXIDE:

This disinfectant led to significant rusting and corrosion of galvanized steel, severe pitting corrosion and warping of aluminum, while showing no reaction with stainless steel in both test scenarios.



TYPES OF SURFACE INTERACTIONS:

The study identified corrosion, rusting, rouging, and discoloration as key indicators of material degradation, each posing varying risks to structural integrity and contamination potential in cleanroom environments.

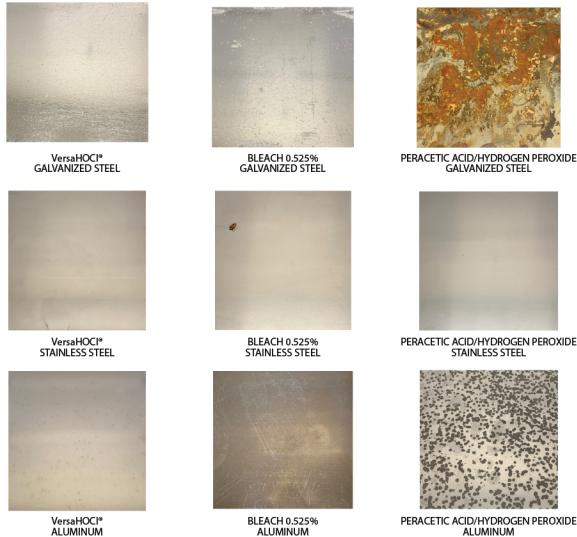


Berkshire
ENGINEERED CLEAN

OBSERVED INTERACTION



24 HOUR SOAK TEST



- EXTREME USE:**
VersaHOCl® showed minimal interaction; Bleach and Peracetic Acid/HP caused significant damage to some metals.

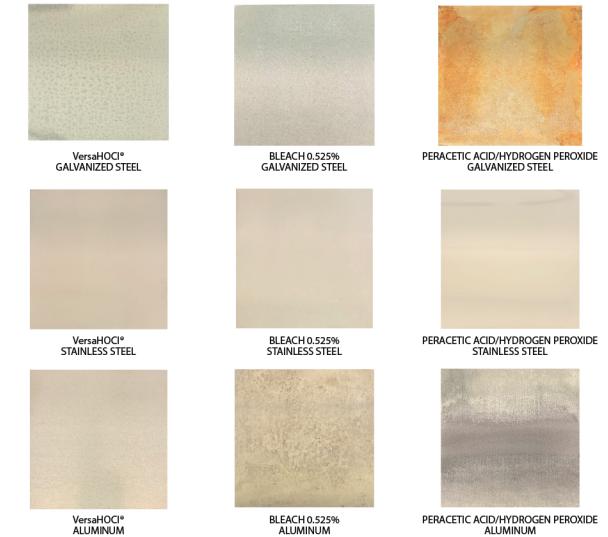
TYPES OF DAMAGE OBSERVED:



FOR MORE INFORMATION



CONTINUED APPLICATION TEST



150 spray/wipe cycles (simulated 6 months), 10-minute contact time reflecting industrial cleaning practices

- CONTINUED APPLICATION:**
VersaHOCl® again showed minimal interaction; others caused rouging, corrosion, and warping.

CONCLUSION:

The findings highlight that VersaHOCl® is the most effective disinfectant for protecting metal surfaces, causing minimal damage compared to other disinfectants, reinforcing its application in cleanroom environments.

