



Common disinfectant chemical compatibility

WITH STAINLESS STEEL



BSC MYTHBUSTERS WITH

Kara Brunelle, Ph.D.
Baker Science Director



There are a lot of rules, 'guidelines', rumors and myths for using a biosafety cabinet, we'll be exploring:

Which are true?
Which are not?
Why?

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We'll get some answers

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Not all disinfectants are appropriate for all microorganisms you'd like to kill, and the same goes for the surface they are applied to. Some chemicals can stain, pit, and/or rust your stainless steel surface of your Biosafety Cabinet (BSC) with repeated use, leaving a hard to clean work surface. Here's a handy chart of commonly used cleaners and their compatibility with 304 and 316 Stainless Steel. As a rule of thumb, all chemicals rated B-D if used, should be followed up with a sterile rinse of a Category A chemical such as sterile water or alcohol to protect your steel. The brand name cleaners referenced are commonly used in pharmacy applications.

Chemical	Ratings	
	304 SS	316 SS
Water, Distilled	A	A
Water, Deionized	A	A
Water, Fresh	A	A
Ethanol	A	A
Iodophor	A	A
Isopropyl Alcohol (70%)	B	B
Sodium Hypochlorite (<20%)	C	C
Sodium Hypochlorite (100%)	D	D
Citric Acid	B	A
DECON-QUAT®	C	B
Peridox®	B	B
Vesphene™	B	B
Vesphene Environ®	D	B
LpH® III se	D	B
EcoLab® disinfectant cleaner	C	B
Iodine	D	D
Chlorine Dioxide	C	C
Hydrogen Peroxide	B	B
Quaternary Ammoniums	C	B

RATINGS KEY

- A. Excellent
- B. Good: Minor Effect, slight corrosion, or discoloration
- C. Fair: Moderate Effect, not recommended for continuous use.
- D. Softening or loss of strength, and swelling may occur Severe Effect:
Not recommended for any use
- E. Information not available

Reference: Cole-Parmer Chemical Compatibility Database www.coleparmer.com/chemical-resistance



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