

# WELCOME!



This facility is committed to reducing infectious bacteria. Products displaying the Healthy Hardware™ logo are manufactured with CuVerro® copper nickel alloys that actively kill bacteria\*, reducing exposure to these deadly pathogens.

Find out more at  
[www.HealthyHardware.com](http://www.HealthyHardware.com).



*Healthy* **HARDWARE**  
BY TRIMCO

# AGENDA

- **A Mission to Advance**
- **Why is This Discussion Important?**
- **What is Healthy Hardware/ Bactericidal Copper?**
- **MYTHS TO BUST**
- **The Research**
- **What can you do to help and how?**

# MISSION TO ADVANCE

Our MISSION: We make a difference by innovating, designing and manufacturing quality products that make the world healthier, safer, more accessible, and fashionable.



Trimco has been Manufacturing High Performance Industrial Hardware for 70+ Years.



# Why Is This Discussion Important?

JOHNS HOPKINS  
UNIVERSITY & MEDICINE

Coronavirus  
Resource Center

## CORONAVIRUS RESOURCE CENTER

**Johns Hopkins experts in global public health, infectious disease, and emergency preparedness have been at the forefront of the international response to COVID-19.**

This website is a resource to help advance the understanding of the virus, inform the public, and brief policymakers in order to guide a response, improve care, and save lives.

Total Confirmed  
**387,382**

Total Deaths  
**16,766**

Total Recovered  
**101,987**

As of Tuesday, March 24

# Why Is This Discussion Important?



Centers for Disease Control and Prevention  
CDC 24/7: Saving Lives, Protecting People™

- About 80% of Infectious Diseases spread by touch
- 72,000 Americans died in 2015 during hospitalization due to acquired conditions
- 1 in 25 Patients develop Hospital Acquired Infection
- 687,000 Hospital Acquired Infections in 2015 in the USA
- HAI's cost hospitals between 35.7 and 45 Billion Dollars Each Year



**CMS.gov**  
Centers for Medicare & Medicaid Services

## Hospital-Acquired Condition Reduction Program (HACRP)

- Hospitals with HAC Scores in bottom 25% will be fined 1% of Medicare and Medicaid reimbursements

## \$245 Million in 2018

1. Hospital 1 = \$2.877M
2. Hospital 2 = \$2.379M
3. Hospital 3 = \$2.24M
4. Hospital 4 = \$2.1M
5. Hospital 5 = \$1.899M

# WHAT IS HEALTHY HARDWARE®?

- Bactericidal Copper Alloy
- NOT a coating
- EPA-registered alloy kills 99.9% of Six infectious bacteria within 2 hours (MRSA, Staph, VRE, Enterobacter aerogenes, Pseudomonas aeruginosa, e.Coli)
- Continues to Kill Bacteria for the life of the product
- Looks like Stainless Steel, but warmer



The image displays a variety of Trimco Healthy Hardware products, including adjustable pulls, hospital latches, cabinet pulls, ADA grab bars, restroom pulls, push plates, exit device covers, mortise locks, and sliding door levers. A central text box provides key benefits and laboratory testing information.

**Trimco**  
SINCE 1949

**Healthy HARDWARE**  
BY TRIMCO

- Proven to kill 99.9% of the most infectious bacteria\* in 2 hours or less.
- Not a coating and won't wear off!
- Continues to kill bacteria for the lifetime of the product - 24/7!
- Looks like stainless steel to match other hardware products.
- Wide range of hardware and touch surfaces available.
- Made in the U.S.A.
- Available in commonly used products like door pulls, hospital latches, push plates, exit device push pads, mortise lock levers and trim, and more.

\*Laboratory testing shows that, when cleaned regularly, uncoated copper alloy surfaces kill >99.9% of the following bacteria within 2 hours of exposure: MRSA, VRE, Staphylococcus aureus, Enterobacter aerogenes, Pseudomonas aeruginosa, and E. coli O157:H7. Copper surfaces are a supplement to and not a substitute for standard infection control practices and have been shown to reduce microbial contamination, but do not necessarily prevent cross contamination or infections; users must continue to follow all current infection control practices.

www.trimcohardware.com    www.healthyhardware.com    323-262-4191 x2

AP300 Adjustable Pulls

1562 Hospital Latches

APC10 Cabinet Pulls

1198 ADA Grab Bars

562 Cabinet Pulls

1035 Ultimate Restroom Pull

1011

1017 & 1018

Push Plates, Pull Plates, & Kick Plates

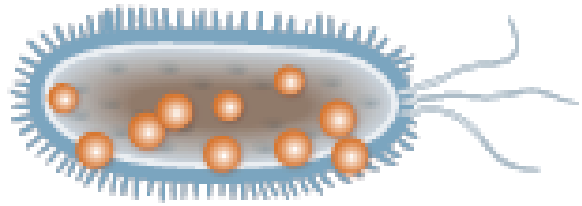
K050

PBT8000 - Exit Device Push Pad Covers For Von Duprin & Precision Devices

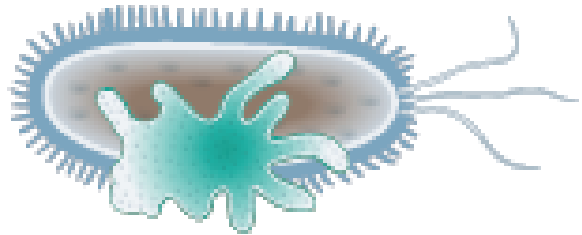
Mortise Locks

ICU Sliding Door Levers

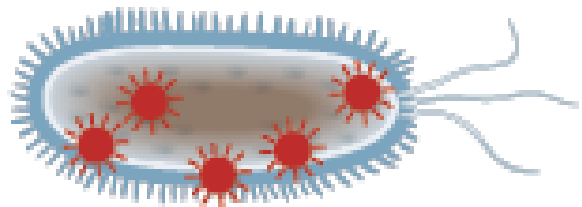
# How does Copper Kill Bacteria?



1. Copper ions on the surface are recognized as an essential nutrient and enter the cell.



2. A lethal dose of copper ions interferes with normal cell functions and membrane integrity.



3. Copper ions impede cell respiration/metabolism, sometimes causing DNA damage.

# MYTHBUSTERS – Healthy Hardware Looks like...



Stainless Steel Armor Plate



# MYTH TO BUST – Does Copper Alloy Turn Green?



**Does a nickel turn green?**



**75% Copper  
25% Nickel**

**Healthy Hardware® will not turn green because it is an alloy similar to nickels!**

# MYTH TO BUST – What happens when the “copper finish” wears off?



**Bactericidal Copper / Healthy Hardware® is NOT a finish OR a COATING – It is a metal alloy that will never wear off – these products are not Healthy Hardware® by Trimco**

# KEY RESEARCH SUMMARY



National Institutes  
of Health



# EPA LAB TESTING RESULTS

**Table I.** Summary of EPA Test Results Conducted Under Three EPA-Approved Test Protocols on Six Copper Alloys Against Six Bacteria (Anderson & Michels, 2008).

Alloy	%Cu	<i>S. aureus</i>		<i>E. aerogenes</i>		MRSA		<i>P. aeruginosa</i>		<i>E. coli</i> O157: H7		VRE			
Efficacy as a sanitizer															
C110	99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C510	94.8	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C706	88.6	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C260	70.0	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C752	66.0	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C280	60.0	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
Residual self-sanitizing															
C110	99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C510	94.8	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C706	88.6	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C260	70.0	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C752	66.0	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C280	60.0	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
Continuous reduction															
C110	99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C510	94.8	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C706	88.6	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C260	70.0	99.3	99.7	99.7	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	99.9
C752	66.0	>99.9	99.6	99.6	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
C280	60.0	99.7	99.7	>99.9	>99.9	>99.9	>99.9	>99.9	99.8	>99.9	>99.9	>99.9	>99.9	>99.9	>99.8



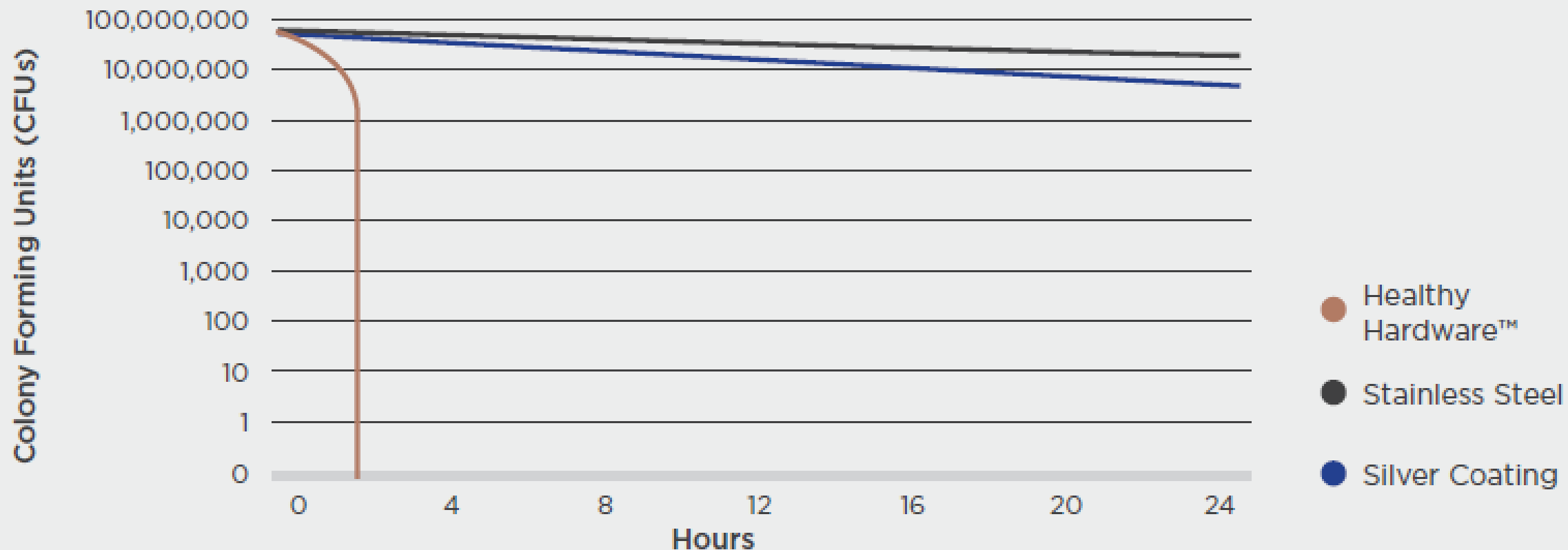
Note. *S. aureus* = *Staphylococcus aureus*; *E. aerogenes* = *Enterobacter aerogenes*; MRSA = methicillin-resistant *Staphylococcus aureus*; *P. aeruginosa* = *Pseudomonas aeruginosa*; *E. coli* = *Escherichia coli*; VRE = vancomycin-resistant enterococci; EPA = Environmental Protection Agency.

MRSA survived less than 2 hours on the bactericidal copper, where after 24 hours there was still a significant load of MRSA on the stainless steel and the silver ion coating

# How much more effective is bactericidal copper than other options?

## MRSA Survival on Healthy Hardware™, Stainless Steel and Silver-Coated Surfaces

At -68°F and -29% Relative Humidity



MRSA survived less than 2 hours on the bactericidal copper, where after 24 hours there was still a significant load of MRSA on the stainless steel and the silver ion coating

# DOD CLINICAL TRIALS - COPPER



Memorial Sloan Kettering  
Cancer Center™



- >The clinical trial showed a 58% Reduction in incidence of Healthcare acquired infections for patients in ICU rooms with copper alloy surfaces
- >MRSA and VRE burdens were 96.8 % lower on copper surfaces
- >83% reduction in bacteria on copper components

"Compared with that among patients admitted to noncopper rooms, the proportion who developed HAI and/or colonization with MRSA or VRE was significantly lower among patients admitted to copper rooms." Citation below.



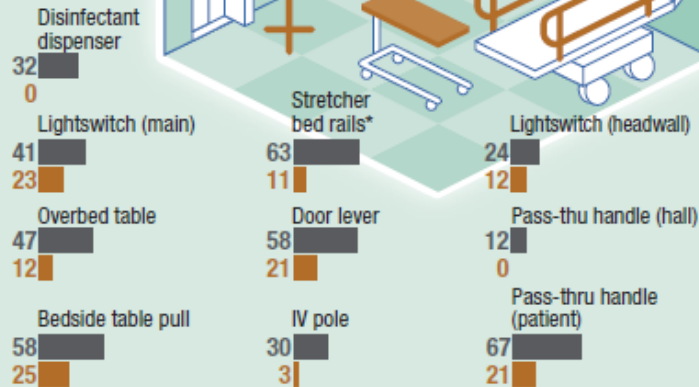
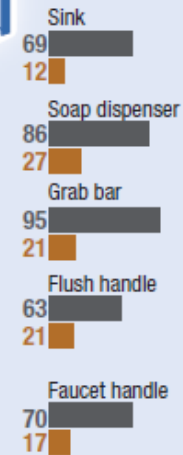
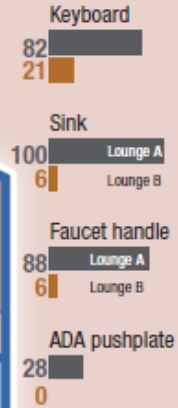
# GRINNELL RESEARCH

## Healthcare surface cleanliness: **Copper** vs. Traditional

### Common Areas

**COPPER** surfaces harbor fewer bacteria in occupied healthcare settings. Graphic depicts % of times surface bacteria exceeded cleaning threshold<sup>1</sup> from a study published in the American Journal of Infection Control.<sup>1</sup>

**TRADITIONAL**  
**COPPER**



Patient Room

Patient Bathroom

## Clinical study assessed **copper's** ability to kill bacteria\*\*

During a clinical study published in the American Journal of Infection Control<sup>1</sup>

**COPPER** was added to **50%** of patient rooms  
18 months | 1,319 samples



**19 TOUCH SURFACES** were swapped out for CuVerro<sup>®</sup> COPPER



### The findings:



GRINNELL COLLEGE

MUSC MEDICAL UNIVERSITY OF SOUTH CAROLINA

GRINNELL REGIONAL HOSPITAL



Healthy **HARDWARE**<sup>®</sup>  
BY TRIMCO

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MUSC MEDICAL UNIVERSITY OF SOUTH CAROLINA

GRINNELL REGIONAL HOSPITAL

# COVID-19 STABILITY

3 HOURS IN AIR

NIH

National Institutes of Health  
Turning Discovery Into Health

4 HOURS ON COPPER SURFACES

24 HOURS ON CARDBOARD

2-3 DAYS ON PLASTIC AND  
STAINLESS STEEL

Source: New England Journal of Medicine

**BREAKING NEWS**

**CORONAVIRUS QUESTIONS**

KEY ISSUES IN FIGHTING WORSENING OUTBREAK



#WORLDNEWSTONIGHT



00:17 / 00:44





# FACILITIES USING BACTERICIDAL COPPPER



# HEALTHCARE PROFESSIONALS

“We’ve known for a long time that copper and other metals are effective in killing microbes, so it wasn’t a great leap to incorporate copper surfaces into hospitals,” said John Lynch, medical director of infection control at Seattle’s Harborview Medical Center, which is redesigning a waste-disposal room to incorporate copper on light switches and door handles.

“It’s always working, it requires no human intervention, no supervision, and it’s acting continuously,” said Michael Schmidt, a microbiology professor at the Medical University of South Carolina and one of the researchers who conducted the first and largest study of copper surfaces in hospitals.

“It’s such an elegant solution to help support improving the cleanliness of hospitals, because it cleans 24/7,” said Todd Linden, Grinnell’s CEO. “You don’t have to teach it how to wash its hands.”

UW Medicine



“It is well known that hospital-acquired infections have a high cost, both in terms of money spent treating them and lives lost. One in twenty hospital patients will develop a hospital-acquired infection; that number increases to thirty percent for patients in intensive care units.”



# REQUEST EXAMPLES

**“I’m building new ICU Rooms. I need copper.”**

**“I’m replacing thousands of levers across our school district and I want to plan for the future.”**

# ENTRY DOORS – MORTISE LOCKS



# EXIT DEVICE PUSH BARS



# PATIENT ROOM ENTRY



# ICU ROOMS - LEVERS







# PUBLIC RESTROOMS/RESTAURANT



# COMMERCIAL STOREFRONTS



**iRun**<sup>®</sup>  
LOCAL

# CABINET PULLS



# CABINET PULLS



# RESOURCES

## Key Web Sites

[www.trimcohardware.com](http://www.trimcohardware.com)  
[www.healthyhardware.com](http://www.healthyhardware.com)  
<http://chaircanada.org/>  
<https://www.copper.org/>  
[www.hospitalsafetygrade.org](http://www.hospitalsafetygrade.org)  
<https://cuverro.com/epa-registration-tests>

## Data Sheets



## Contacts

Anthony Mastroianni  
[amastroianni@trimcohardware.com](mailto:amastroianni@trimcohardware.com)

Adam Matusz  
[amatusz@trimcohardware.com](mailto:amatusz@trimcohardware.com)

Jason Bennett  
[jbennett@trimcohardware.com](mailto:jbennett@trimcohardware.com)

Contact Anthony for more information

## Research

<https://cuverro.com/epa-registration-tests>  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4561453>  
<https://jcm.asm.org/content/50/7/2217>  
<https://www.nih.gov/news-events/news-releases/new-coronavirus-stable-hours-surfaces>

For more, contact Anthony Mastroianni

# FAQ'S

**Q: How can I get a quote or place an order for this product?**

*A: We can provide you with a local distributor partner that is an authorized distributor.*

**Q: Will we see copper hardware coming to market from other manufacturers?**

*A: We hope so! Beware of products that are not EPA certified, note they will use words like inhibit. Look for continuously kills.*

**Q: What is your manufacturing capacity?**

*A: Capacity is dependent on product type and demand.*

**Q: Will Healthy Hardware Turn Green?**

*A: No, because of the Nickel content of the substrate.*

**Q: Does Healthy Hardware look like a penny?**

*A: No, it looks closer to stainless steel than a penny*

**Q: Should I still clean the product?**

*A: this is not a replacement for continued good hygiene practices but is instead one additional tool to assist in the fight.*

**Q: Is this product more expensive than Stainless Steel?**

*A: EPA reporting, regulations, and special mill taxes – compliance*

*A: Supply, this is a specialty product that does not have the same economy of scale as other substrates like Stainless Steel.*

*A: High nickel content makes it more difficult to manufacturer.*

*A: We have been selling this product for several years, we ARE NOT raising our prices to try and take advantage of COVID-19. We want to make this product affordable so we can protect more people!*

# FAQ'S

- A recent U.S. government-funded study conducted by researchers at the National Institutes of Health and the Centers for Disease Control and Prevention (CDC) reported that the SARS-CoV-2 virus, which causes the disease COVID-19, remained viable for up to 2 to 3 days on plastic and stainless steel surfaces vs. up to 4 hours on copper  
(citation: <https://www.medrxiv.org/content/10.1101/2020.03.09.20033217v1.full.pdf>).
- All antimicrobial products marketed and sold in the U.S. are regulated by the Environmental Protection Agency (EPA) to ensure the products are safe to use, and that advertising claims about protecting public health, and efficacy against specific pathogens, are supported by rigorous testing under EPA-approved protocols.
- Copper alloy materials are registered by EPA (Reg. Nos. 82012-1 to 6) to make public health claims against six specific bacteria\* (e.g. continuously kills >99.9% of MRSA within 2 hours of contact between routine cleanings). Considering the limited evidence against SARS-CoV-2 referenced above, further testing would be required to assess the effectiveness of copper surfaces, and to support EPA-registered product label claims against SARS-CoV-2.
- CDA is committed to fulfilling its EPA-mandated Stewardship obligations established to convey accurate information to the public and the infection control community about the efficacy and proper use and care of copper alloy materials. Copper surfaces are a supplement to and not a substitute for standard infection control practices.