995841 Mono-Adjala Townline, Rosemont, Ontario L0N 1R0 Canada
T: 1 888-633-8460 | E: info@aereustech.com

Powerful Solutions to Fight Bacteria
www.aereustech.com

Cleaning Guidelines for CuVerro Shield™ by Aereus Technologies Antimicrobial Copper Surfaces

Your new product now utilizes CuVerro Shield™ by Aereus Technologies, a finish that continuously kills bacteria when regularly cleaned as per the instructions in this document. CuVerro Shield™ creates a safer surface by killing greater than 99.9% of bacteria* within two hours and continues to kill 99% of bacteria* even after repeated contamination.

CLEANING

Copper and copper alloys are active surfaces and will develop a protective oxide coating (or patina) over the course of 2-4 weeks when washed and cleaned using suitable and existing cleaning agents and protocols. This patina does not reduce the antimicrobial properties of the product according to results from laboratory testing and clinical trials and protects the component from further oxidation. However, it will become compromised if it comes into contact with a strong chemical reagent. So proper selection of cleaning products and protocols are essential to the longevity of the patina and the efficacy of the product.

Hospital Detergents – these will clean grease and other soil from surfaces and should always be used prior to disinfection.

- Most cleaning products are proprietary and will have instructions for use – always refer to manufacturers' instructions.
- Items should be cleaned, dried (disinfected as necessary) and inspected before use.
- If applying disinfectant after normal cleaning, it is common to wash with clean water and dry between these steps to ensure optimum activity of disinfectant.
- Cleaning wipes are single use products and should be disposed of after use.
- Some products may combine disinfectants with detergents and allow single-step use.

Note: Material finish may darken slightly or lose some gloss over time depending upon the type of material finish used to create your parts and the specific cleaners used over time. The efficacy of the product is not negatively impacted by these changes. Only use the abrasive style cleaners on the hand polished versions of CuVerro Shield™ and not on the machine polish vibratory finishes. Use a soft cloth or Mr. Clean® Magic Eraser style sponge or wipes for vibratory polished products.

DISINFECTING

Hospital Disinfectants – these will disinfect the surface of the copper and generally contain:

- Alcohols – not corrosive to copper alloys, but not active against all microbes.
- Bleaches – containing chlorine or with the active ingredient sodium hypochlorite; the solution is not corrosive to copper alloys when used correctly.
- Quaternary ammonium – such compounds do not damage copper alloys.
- Ammonium chloride – is of little concern for copper when used in normal dilute formulations.
- Phenol and ammonia – are rarely used organic chemicals and are not harmful to copper.

Other disinfection techniques:

- Standard Hydrogen peroxide (solution or vapour - HPV) has no long-term effect on copper alloys. *Accelerated Hydrogen Peroxide should be avoided* due to additives used to stabilize the material that can interfere with the copper ion reactivity.
- Steam may be used for cleaning or disinfection and will not harm copper alloys.
- Formaldehyde is sometimes used for laboratory disinfection and fumigation and is not deleterious to copper or copper alloys.

RESTORING

The original luster of the product can be maintained by wiping with common citric acid disinfectant products such as CleanCide® (0.60% Citric acid) and can be used along with a Mr. Clean® Magic Eraser Sponge. These products will restore the original look of the component without leaving a residue and can be used for regular sanitizing and cleaning.

AVOID products that contain EDTA or metal chelators as these products partially and temporarily inhibit the product's antimicrobial properties. Accelerated Hydrogen Peroxide may contain stabilizing additives and corrosion inhibitors that may interfere with the copper ions on the surface over time and should be avoided. Similarly avoid proprietary polishing products such as Brasso as it can leave a residual film on the surface of the component which inhibits the antimicrobial effect for a period of time. If you ever need to, removal of these film / residues can be difficult but may be achieved with alcohol wipes (when treating vibratory polished parts) or Scotch-Brite™ pads with Bar Keepers Friend cleaning products when treating hand polished matt finish CuVerro Shield™ products.

Metal Polishes and Cleaners - these will brighten the appearance of the copper and copper alloys ***but these need to be avoided as they often contain a residue that will impair surface ion release.***

Citric acid-based cleaners (0.60% maximum) are preferred as they disinfect and remove tarnish without leaving a residue.

*Visit www.aereustech.com for more information

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