

## A-dec Surface Cleaning and Disinfecting Recommendation

Valued Customer,

A-dec is committed to supporting healthcare professionals in the practice of dental equipment asepsis. Many surfaces in and around the treatment area require barriers, cleaning and/or disinfection on a regular basis. Understanding the need for durability in this environment, A-dec continually evaluates materials and disinfectants/cleaners for their interactions. This effort guides us in the selection of materials that are as chemically resistant as possible, while meeting all other requirements. Utilizing in-house testing, testing completed by suppliers of materials, external literature and customer feedback we offer the following:

- Single-use barriers designed and produced in accordance with FDA Good Manufacturing Practices may be used and replaced after each patient use, with areas to be cleaned and disinfected at the end of the day or after each patient use if the barriers have been compromised.
- Disinfectant and cleaning agents are aggressive by design as they are formulated to attack bacteria and micro-organisms. An unavoidable side effect is that all disinfectants and cleaning agents will cause some amount of degradation over time. How rapidly and how this degradation manifests is a function of the product's formulation and its use.
- Formulations are proprietary, can change without warning and are a combination of active ingredients and "other" ingredients. While active ingredients are listed on the EPA-registered label for surface disinfectants and ingredients that are regarded as hazardous to humans or the environment are listed on the Safety Data Sheets (SDS), knowledge of these limited ingredients can only provide partial insight about potential interactions between the formulations and various materials. The specific chemicals included in "other ingredients" are commonly not specified. The interaction between these unknown ingredients and materials is difficult to predict.
- More is not necessarily better. Detrimental effects to equipment are typically accelerated by frequency and/or heavy exposure. A-dec always recommends following the instructions for use supplied by the cleaner / disinfectant manufacturer. Where applicable it is recommended that wipes instead of spray be used and that sprays be applied to a cloth instead of being applied directly to equipment.
- Based on in-house testing and customer feedback, A-dec has identified categories of cleaners / disinfectants that typically tend to be more or less aggressive.

### More Aggressive:

- Surface cleaner/disinfectant products which contain an oxidizer, such as hydrogen peroxide (pH typically about 3 or lower) or sodium hypochlorite, tend to be among the more aggressive in regards to interactions with equipment per our testing observations. We have observed that such products tend to be particularly aggressive toward one or more of the following categories: metals, plastics and/or upholstery.
- Surface cleaner/disinfectant products which contain one or more alcohol, such as isopropanol or ethanol, also have the tendency to be among the more aggressive when the alcohol level is about 50% or greater. Such products tend to be particularly aggressive toward one or more of the following categories: plastics and/or upholstery.

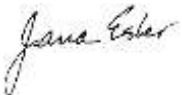
### Less Aggressive:

- High-dilution water-based phenol formulations tend to be among the less aggressive in regards to interactions with equipment. We have observed that surface cleaner/disinfectant products containing a particular phenol, o-benzyl-p-chlorophenol, tend to cause discoloration of some plastics over time.

- Surface cleaner/disinfectant products which contain quaternary ammonium compounds (“quats”) with less than 25% isopropyl alcohol also tend to be among the less aggressive in regards to interactions with equipment. Please note that several products on the market fit this description yet have been observed to adversely affect certain materials used for equipment surfaces. It is our belief that this observed interaction may be the result of both the active and “other” ingredients.
- It is recommended that all equipment be rinsed with a water-dampened cloth and dried at the end of each day to minimize the build-up of residue.

Material compatibility with surface cleaning/disinfection products sold into the dental market is a continuous area of investigation as formulations and asepsis protocols change. To this end, A-dec will continue to update our learnings based on our investigation. Please do not hesitate to contact us with any questions.

With kind regards,



Jana Esler  
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