

Cleaning Recommendations for Coated Foam or Ultrafoam Positioners

Please note Uncovered foam is not able to be cleaned.

The following cleaning and decontamination materials are known to be compatible with CFI medical devices made of coated-flexible foam and Ultrafoam materials.

1. Rubbing Alcohol (70% isopropyl alcohol)
2. Bleach Solution (10% household-type bleach in cold, cool or warm water)
3. General Purpose soap or detergent type cleaners ("409", etc.) at their normal manufacturer recommended strength.

AVOID the following types of materials for cleaning:

1. Detergent cleaners/disinfectants that also contain hydrocarbon solvents such as butyl acetate, acetone etc. which can dissolve plastic materials. Such cleaners are sometimes described as being intended for removal of graffiti, or heavy degreasing.
 2. Ammonia solutions which can cause some plastics to turn green in color
 3. Detergent type cleaners at abnormally high concentrations (i.e. Concentrated cleaners, intended to be used in diluted form, that instead are used in undiluted, concentrated form.)
 4. Steam
 5. Water or other cleaning materials at temperatures higher than 150 degrees Fahrenheit
 6. Certain Grades of "Vesphene" and similar sterilants/cleaners.
 7. Acids of any kind.
 8. Rough brushes, aggressive scrubbers, sharp objects and abrasive materials.
 9. Iodine Solutions such as "Betadine"
- The most common clinical contaminants (i.e. skin oils, blood, urine, vomit, feces, contrast medium etc.) are cleanable from patient contact surfaces using general purpose soap or detergent type cleaners ("409" etc) at their normal manufacturer recommended strength. If needed, rinse with clear water (temperature no higher than 150 degrees Fahrenheit) to remove gross contamination before applying the cleaner.

Dried contamination may need to be kept moist for an extended period to re-hydrate the contaminant material before cleaning.

- Avoid rigorous scrubbing, stiff brushes, sharp objects such as knives and scrapers, abrasive cleansers, abrasive pads, steel wool and similar cleaning methods that are capable of causing mechanical damage. Whenever possible, vomit and other aggressive contaminants should be wiped or washed off surfaces promptly so as to minimize the likelihood of permanent chemical-attack effects.
- The simplest way to evaluate cleaning materials is to review the Material Safety Data Sheet to see if they are safe for incidental skin contact, safe for use on plastic surfaces and non-flammable. Cleaning materials that are safe for incidental skin contact and that are non-flammable, and do not have a label warning that they are not recommended for use on plastic materials, usually will be safe and effective.
 - Note however that the user is always responsible for careful testing of the cleaning material on a small, non-critical area of the part to verify suitability. This is especially important if the cleaning material is labeled with a statement similar to “before using on plastic materials, test on an inconspicuous spot to assure that this cleaning material is safe.”
 - Note also that such cleaning materials **must be used at a concentration not stronger than the manufacturer’s recommendation.** It is common for maintenance personnel to mix detergent-cleaner concentrates at greater than recommended concentrations in order to make the cleaner “more effective.”
- While Betadine and similar iodine preparations are not recommended for general cleaning and disinfecting, these materials will not significantly stain or discolor the coating material used on CFI coated foam cushions on incidental contact during clinical uses. Dried residue of Betadine on flexible coating surfaces typically can be wiped off using running alcohol. Never scrub off dried Betadine using water based cleaners. **The use of Betadine on rigid plastics or UltraFoam is never recommended.**
- The elastomeric coatings used on flexible foam parts by CFI are made flexible by the addition of a special ‘plasticizer’ during their original formulation. These plasticizers are generally able to withstand regular wipe-down cleaning with conventional detergent cleaning solutions in their manufacturer recommended diluted form. However, plasticizers can be gradually “cleaned” out of the product if the cleaning materials are

excessively concentrated or too hot, or if they contain solvents. Such plasticizer removal will permanently alter a foam coating's flexibility.

- Product components based on textiles i.e. Straps fabric covered table pads, hook and loop fasteners etc generally are not intended for hospital type automatic washing. The special characteristics of imaging optimized fabrics and construction methods are not compatible with high temperatures and extreme mechanical and chemical environment of such washing processes. Instead contamination of such products should be removed by hand cleaning to retain the products imaging performance.
- A flexible foam or Ultrafoam product that has a tear, puncture cut or other breach of the coating material may be susceptible to penetration of either contaminants or contaminant carrying cleaning fluids through the breach into the product. Such contaminants then might flow out of the product during subsequent use resulting in contamination contact with patient, clinical personnel equipment etc. For this reason, CFI recommends that coated form or Ultrafoam products with breached coating should be taken out of service and immediately replaced.
 - Note also that flexible foam and UltraFoam products with breached coating that have absorbed contaminants or cleaning materials may subsequently artifact unpredictably in diagnostic imaging procedures including R&F Xray, CT, MR and others.