TECHNICALLY SPEAKING

ITW Chemtronics
8125 Cobb Center Drive
Kennesaw, GA 30152

Tel: 800-645-5244 x166

Fax: 770-423-0748

Technical Support:

800-TECH-401

or

mwatkins@chemtronics.com

Website:
www.chemtronics.com

Cleaning versus Replacement: A Major Cost Savings

We recently received a call from a very satisfied customer who has used one of our solvent cleaning products to perform a quick repair of medical equipment. This repair resulted in a cost savings of more than $6000.00 over buying new replacement equipment.

Bill is the Clinical Engineer at a local Hospital Surgery Center. He heads the department that is responsible for maintaining the electronics used in the precision medical equipment used at the Center. In the past he used Freon® 113 (Freon® TF) as the primary cleaner for cleaning the circuit boards and electrical connectors of the Center's equipment. At the time, Freon® 113 was relatively cheap, effective and safe to use on his equipment.

With the demise of Freon® 113 as mandated by Federal Government clean air laws, Bill sought a replacement cleaner that would perform as well as the Freon® 113 for these cleaning operations. Bill tried a number of different products but found them to have an objectionable odor or to be too aggressive on the plastics used on the equipment. Bill finally settled on the Chemtronics Electro-Wash® CZ Cleaner Degreaser, part number ES7100, as the best replacement for Freon® 113. Bill considers the odor of Electro-Wash® CZ to be negligible and he has found the product to be safe for all the plastics he encounters. He now uses Electro-Wash® CZ as his "go to' cleaner for servicing all the electronics associated with the medical equipment used in the hospital.

Of course Electro-Wash® CZ is more expensive than Freon® 113, as are all the new electronics cleaners on the market that use fluorinated solvents as their primary ingredients. Fluorinated solvents are more expensive to produce and this increased cost shows up has a higher cost for cleaners that contain these fluorinated solvents. The EPA's Significant New Alternatives Program (SNAP) mandates the use of alternative fluorinated solvents to replace some chlorinated solvents that have been eliminated or restricted in use under the Clean Air Act and other federal programs. Under the Clean Air Act certain chlorinated solvents have been eliminated from commercial and industrial applications, as they have been found to damage the protective ozone layer in the earth's atmosphere. Fluorinated solvents do not pose this same danger to the ozone layer and can be considered approved alternatives for these restricted chlorinated solvents, therefore some chlorinated solvents like Freon® 113 are now being replaced with SNAP-approved fluorinated solvents.

TECHNICALLY SPEAKING

ITW Chemtronics
8125 Cobb Center Drive
Kennesaw, GA 30152

Tel: 800-645-5244 x166

Fax: 770-423-0748

Technical Support:

800-TECH-401

or

mwatkins@chemtronics.com

Website:
www.chemtronics.com

One of the many pieces of surgical equipment used is a device that has a plug-in hand piece. Recently this equipment was turned in to the repair department as non-functioning. When tested it was found that the main device processor was not recognizing that the hand piece was connected, even after it was repeatedly disconnected and plugged-in.

Bill tested the device himself many times but could not get it to work. In desperation he decided to clean the hand piece connector plug by spraying it with Electro-Wash® CZ. He was pleasantly surprised to find that when he plugged the hand piece in the equipment was immediately restored to working order. He tested it many times and found this quick cleaning of the hand piece connector with Electro-Wash® CZ had solved the problem. Bill thinks the Electro-Wash® CZ effectively flushed out residual moisture from the connector, left behind after the connector had been autoclaved prior to use of the hand piece in surgery.

Had Bill not tried to clean the electrical connector with Electro-Wash® CZ, the only alternative for getting the equipment working would have been to replace the non-functioning hand piece, at a cost of $6000.00. The high cost of replacing the hand piece was undesirable, considering the equipment had only been in service for two years. Even though his accounting department had previously complained about the high cost of Electro-Wash® CZ, Bill was able to demonstrate the cost effectiveness of this product by its use in this simple repair.

Bill expects that the use of Electro-Wash® CZ to clean the hand piece electrical connector, after each autoclave sterilization, will keep this piece of surgical equipment functioning for a long time, postponing the eventual replacement of the hand piece assembly. The ease with which he was able to restore a piece of equipment using the Electro-Wash® CZ has convinced him to use CZ in all his electronic and electrical cleaning applications.

Michael Watkins
ITW Chemtronics
Technical support