

# Green Fingers

**MYTH:** Eco-friendly products are more expensive

**FACT:** They can cut water and energy use by 20%, less solution means a reduction in product costs and their effectiveness means lowered labour costs

**G**reen is the new black in the FM world, with companies striving to implement environmentally friendly initiatives across the board.

From microfiber technologies to molecular cleaning products, companies are starting to demonstrate an awareness of how they can cut down on their carbon footprint.

Alkalis, acids and detergents are the most commonly found chemicals in cleaning products. But what harm do they actually cause?

One of the biggest threats is that of the ecosystem, caused by the pouring of chemical based cleaners down the drain or toilet. The chemicals end up in treatment plants where they are further treated with chemicals to try and make them cleaner. They are then released into rivers and oceans causing algae to grow on plants smothering and killing them. As a result, animals that rely on these plants as a food source are unable to feed off them and die.

## WHAT'S YOUR POISON?

Worse, the chemicals harm humans. Homes are built to contain air, meaning dangerous pollutants often have no escape and linger in environments.

Steve Ashby, managing director, of Vivoteq ME, an organisation dedicated to promoting healthy indoor environments through its line of chemical-free cleaning products, says we risk more health problems staying in than if we were to go out.

"We are exposed to indoor air 90-95% more than an outdoor environment. Internally, the concentration of pollutants aller-

gens, bacteria and dust just gets recycled and because of the high levels of exposure to the wide variety of these bacteria, it is more damaging to our health."

The most concerning fact, for FM service providers and cleaning companies was the finding that it was cleaning professionals that were most at risk.

A \$446,865 study conducted by the University of California, Berkely, found that a cleaner, who cleans four houses a day, five days a week for fifty weeks a year, would take in double the recommended limit of the carcinogen formaldehyde, commonly linked with cancer.

## BACK TO SCHOOL

Khidmah believes it's more than a simple swap of cleaning products and works with Diversey, a company driven by eliminating harmful chemicals from its production line. Diversey uses surfactants that break down into harmless non polluting compounds.

Housekeeping manager, Jayne Ludlam, says education is key and there is a need to raise awareness that eco-friendly methods of cleaning involve less product use, thus resulting in cost savings and reducing harm to the environment.

"We also wanted to break the cleaning myth that the more products you use the cleaner the place will be. This was done with training, coaching and clear practical demonstrations about the use of and structured methods of cleaning with biodegradable products," she explained.

Thiess Middle East general manager Richard Naylor expressed surprise that



Clockwise from top:  
Thiess ME staff;  
Steve Ashby, Vivoteq  
MD; Vivoteq at work;  
Khidmah staff member  
cleans window.

though some of the eco friendly technologies have been around a while, many FM companies are still not using them.

"Microfiber technology has been around for many years; however the use of it in commercial cleaning only started to become popular over the last ten years or so. Microfibers were first publicised in the early 1990s in Sweden and saw success as a product in Europe over the course of that decade. Even today we are surprised by the



limited number FM companies who are commonly using this technology within the GCC."

#### MOVE TO MOLECULES AND MICROFIBER

The microfiber technology used in mops and cleaning cloths is designed to pick up more dirt grease and dust than conventional cloths. It is highly absorbent, holding eight times its weight in water. Naylor explained that using the technology has meant there is less of a requirement for chemical use.

"In many cleaning applications such as washing floors, sanitary ware, office furniture, microfiber cleaning fabrics can be

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Clockwise from this image: Vivoteq in action; member of Khidmah's cleaning team; Jayne Ludlam, Khidmah's cleaning manager.



used without detergents or cleaning solutions which would otherwise be needed."

And that wasn't the only benefit that the company found.

"Due to the unique action of the microfiber products our cleaners are able to clean faster, therefore improving our productivity. Due to the reduction in chemical products we have also seen significant savings, which we have been able to pass on to our customers," said Naylor.

Khidmah started work by identifying the chemicals that required the least amount of usage for maximum effect. The company then narrowed its range down to three products and partnered it with the microfiber cloth. The result?

"We have had zero accidents and medical cases such as dermatitis, skin rashes and inhalation of chemical fumes,

**1/3**

Chemical cleaning products contains ingredients known to cause human health

**2,403,539**

Human exposures to poisons were reported in 2006 or environmental problems

**\$2.3 billion**

Estimated societal cost of poisoning incidents.

which are often caused when using harsh chemicals containing a high percentage of surfactants and in substandard packaging," explained Ludlam.

"We wanted to eliminate the opportunities for staff to mix, dilute and tamper with the products. As we use the products and methods to clean inside palaces, private villas, apartments as well as commercial properties we have never incurred damage to furnishings, bathroom surfaces, marble and textiles which are common when using uncontrolled acids and bleaches."

**Why make the move?**

Ashby agrees that "control" is the key word when it comes to cleaning. Unlike conventional cleaners Vivoteq's product range uses molecules instead of chemicals and since it protects surfaces for up to 90

## ANALYSIS: GREEN CLEANING



Clockwise from above: Microfiber cleaning in action; Khidmah staff use Diversey cleaning products; Richard Naylor, GM, Thiess Middle East.

days, less physical cleaning is required thus costs are significantly lowered.

"There is no requirement for use of strong chemical based cleaning products after you've put this [Vivoteq] down. We're not trying to replace the cleaning that is already done. What the product does is clean the layer underneath, creating a protective layer to make the cleaning more effective," he said.

"For FMs and cleaning companies, the product acts like an extra pair of hands which supports their cleaning activities, working even after the cleaning team has gone home."

Bradley Robbins, director services, Khidmah, believes it's up to FM companies to convince their clients of the multiple benefits of switching cleaning products.

"FM companies should take the lead collectively to show clients - whether asked to provide environmentally friendly clean-

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- Richard Naylor, general manager, Thiess Middle East

ing or not - that the products can provide a cleaner, long lasting and cost effective solution, more and more so in this day and age. The more we use them the better our knowledge of them and improved prices we can offer." **fmME**

### GREEN PRODUCTS

#### CHEMICAL- FREE

Khidmah uses products by Diversey, a company with a long tradition of environmental stewardship and a strong commitment to sustainability. By using well-established environmental toxicity data points and innovative product packaging and dispensing technologies, Diversey continually seeks to improve the environmental profile of the products and packaging materials. The majority of products are designed so they don't directly enter the aquatic environment without wastewater treatment, reducing the risk to marine life.

Diversey was the first chemical manufacturing/supply company globally to stop using CFC's in aerosols. They also do not use Phosphates or NonylPhenols which have a negative environmental and aquatic impact.

#### MOLECULAR TECHNOLOGY

Vivoteq uses products which are EPA registered and accepted by the US Department of Agriculture for use on food surfaces. Non-toxic and water soluble, they are environmentally friendly with no leaching, heavy metals, or poisons. They bond to porous and non-porous surfaces for 60 to 90 days. They are safe to handle and are applied with foggers. The active ingredient, Pathene forms a colourless, odourless, positively charged polymer that chemically bonds to the treated surface. It is like a layer of electrically charged swords. When a microorganism comes in contact with the treated surface, the quaternary amino "sword" punctures the cell membrane and the electrical charge "shocks" the cell providing long term control of growth on treated surfaces.

#### MICROFIBER TECHNOLOGY

Thiess uses microfiber technology. When high-quality microfiber is combined with the right knitting process, it creates an extremely effective cleaning material. This material can hold up to eight times its weight in water. The fibres in a Microfiber cloths or mops are designed in to ensure they are highly absorbent and act in a mechanical way to pick up more dirt, grease and dust than traditional cloths. According to tests using microfiber materials to clean a surface leads to reducing the number of bacteria by 99%, whereas a conventional cleaning material reduces this number only by 33%.