



KILLS GERMS FAST!

With MRSA a genuine threat worldwide, attention is rapidly shifting to the uncoated use of copper for bathroom and medical applications. It is, after all, the best bug-killing material known.

It's a rare day when the papers aren't packed with stories about the horrors of hospital acquired infections: 300,000 of us pick up a bug in hospitals each year, a frightening one in nine of all UK patients. Terrifyingly, over 5,000 of us die from them.

What makes it worse is that most of us can guess where the offending microbes come from: other patients, hospital staff, and contaminated surfaces, not least the likes of door handles and taps.

The results were quite staggering. Bacteria survive on stainless steel for six hours. If the experiment were continued, you would see they remain alive for days, even months. By comparison, after only 75 minutes on copper all the bugs are dead."

Of course, the chances of you finding 10 million bacteria on a 1cm² area in even the dirtiest hospital is virtually impossible, but at a more realistic dose – say 1,000 bacteria per cm² – the bugs would be killed by copper well within thirty minutes. At typical room and body temperatures it's infinitely better than silver, even, another metal people make antimicrobial claims about.



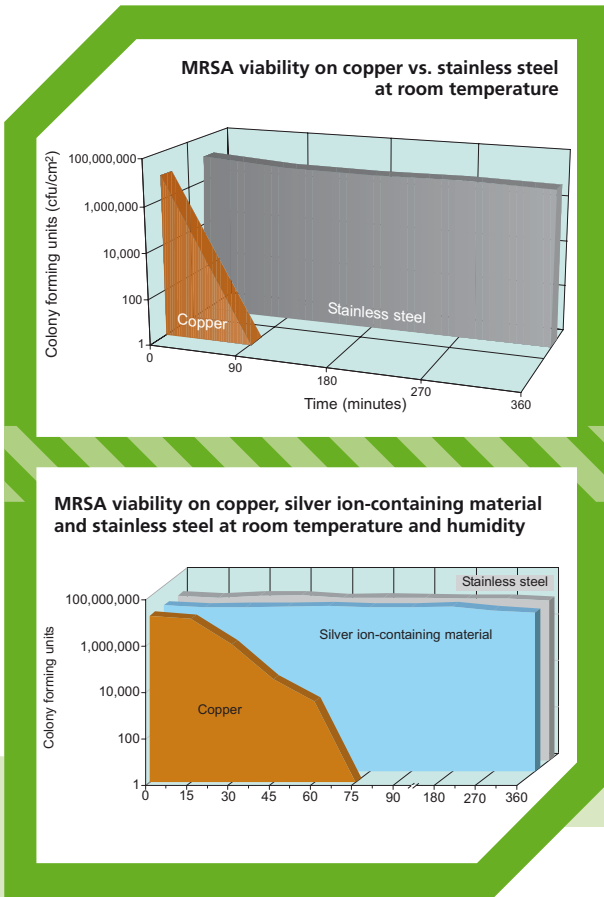
DID YOU KNOW

80% of infectious diseases are spread by touch, and with swine flu the latest hot topic, finding effective ways to combat this has never been more pressing.

Fortunately, many bathroom products and fittings are already made from a naturally antimicrobial material, which we then foolishly cover over with a coating that prevents it from fighting germs. It's a familiar metal, one mankind has been using for thousands of years: copper.

"In his lab, Professor Bill Keevil inoculated 10 million MRSA bacteria onto a 1cm² coupon of either copper or stainless steel," says Angela Vessey, director of the Copper Development Association, a non-profit trade association. "He then left them at room temperature for various time intervals before counting the surviving bugs on the surface.





Happily, copper components should be no more expensive to make or install than most of the currently standard alternatives.

“The UK is leading the way in this,” says Vessey, “so the world is watching what happens here. On our website our product catalogue lists the uncoated copper products that we know about – but we have gaps, and we need to fill them.”

Indeed, there’s currently no copper showerhead available, which just shows what potential there still is for the UK bathroom industry. As Vessey says, *“Britain, the world needs your products!”*

For more information check out www.copperinfo.co.uk/antimicrobial



Top brass

Impressed by the lab results, but wanting to know more about real world scenarios, the Department of Health asked CDA to set up a trial.

“Contamination hot spots were identified by the infection control team,” says Vessey. “Door handles, light switches, grab rails, bed tables and commode chairs were included, and three were selected for sampling on a general medical ward: push plates, taps and toilet seats. The results showed the new copper components had between 90% and 100% fewer organisms on them than the standard items, which were made of aluminium, plastic or chrome-plated.”

In short, copper items work in real-life conditions, and, unlike coatings, are antimicrobial throughout their long service life.

Though it comes in various forms – including brass (copper and zinc) and bronze (copper and tin) – the best compromise of fast kill times with improved corrosion resistance seem to be alloys with around 60% copper content.

COP THAT!

Clever uses of copper through the ages...

- **Ancient Egypt:**
Used to treat eye infections
- **Ancient Greece:**
Grated the edges of their bronze swords into their battle wounds to prevent infection.
- **Farmers:**
Have used copper salts to keep fungi off their crops for hundreds of years.
- **Early '90s:**
First real investigations into copper’s effect on legionella in plumbing systems.
- **2000-date:**
Papers published to show how MRSA, Influenza A (H1N1) and others can’t survive on copper.