

# The silver solution

**P**roEconomy, the producer of the Orca copper and silver ionisation system is expanding rapidly in spite of claims from certain chemical companies that releasing silver in drinking water is not allowed.

The urgent need for a proven solution to control Legionella is leading to rapid growth in the market for copper and silver ionisation systems, says ProEconomy.

The company's UK operation is going from strength to strength with further Orca system installations in NHS trusts, more qualified staff, a recent move to larger premises, and expansion into the corporate market overseas with operations in Holland, Italy, and Australia.

That silver is banned is simply not true, says Birgitta Bedford, ProEconomy's technical director, who describes it as a poor attempt by the chemical companies to try and keep silver ionisation at bay. Even the website of the Drinking Water Inspectorate ([www.dwi.gov.uk/cpp/silver](http://www.dwi.gov.uk/cpp/silver)) states that although silver is not permitted for disinfection of public water services due to uncertainty over long-term health effects, this should not be an obstacle to the use of copper silver ionisation systems in the control of Legionella bacteria and other waterborne bacteria.

## Risk assessment

However, copper and silver, because of the way in which they are used within ionisation systems fall within the scope of the Biocidal Product Directive and ProEconomy has compiled risk assessment dossiers on both metals which have been accepted by the European Commission under regulation EC No 1896/2000.

Birgitta recently completed an MSc at Cranfield University, and wrote a paper on the effect of copper and silver ionisation on humans and the environment. None of it suggests that copper and silver ionisation have any adverse effect. Both substances are frequently studied by the copper plumbing and photographic industries. Both those industries release much more copper and silver into the drinking water and the environment than the ProEconomy Orca system, and

again no adverse effect has ever been reported.

When Birgitta researched the level of toxicity to humans, she found that only very high doses of copper and silver are toxic. These doses are a million-fold higher than those found in water treated by the Orca system. None of the genicity tests completed with either metal showed carcino-, muta- or teratogenicity. In fact, there are fewer adverse effects associated with copper and silver than with other available techniques to control Legionella. The only long-term adverse health effect associated with ingestion of high doses of silver is Argyria, a cosmetic condition, whereby the silver gives a dark pigmentation of the skin, which is not life threatening. Again this is only associated with the ingestion of very high doses of silver, many times higher than those produced by copper and silver ionisation.



*Italian job: the team from ProEconomy's Italian office by HSBC, Canary Wharf, one of the company's UK corporate clients*

As the customer records confirm the Orca system is successful in controlling Legionella in hot and cold water systems at low concentrations of copper and silver.

For more information on the Orca system, call ProEconomy on 01525 854111, e-mail [enquiries@proeconomy.com](mailto:enquiries@proeconomy.com) or visit [www.proeconomy.com](http://www.proeconomy.com)

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