

# New idea for cleaners: Just add electricity

NEW YORK (AP) — It sounds like a late-night infomercial: Kill germs and clean surfaces with nothing more than water and a few volts of electricity! Pay pennies a gallon! Strong enough to kill germs but gentle on your skin!

The use of electricity and water to clean and disinfect has been embraced by some food and hospitality businesses looking to save money and go green by swapping out conventional products.

At busy Whole Foods on Manhattan's Union Square, workers keep battery-operated spray bottles designed to keep surfaces clean with water packing an electrical charge. Also available are electrolyzed oxidizing water products, or EO water, which are cleaning systems that use salt and electricity to create solutions for cleaning kitchens, prison floors and hotel rooms.

No, these are not miracle elixirs.

While users of the two different types of systems say they save money, start-up costs are far higher than simply buying a bottle of bleach. They're not suitable for every cleaning job, and different

zapped water treatments can lose potency over time. Critics say some of the claims for electrolyzed water in particular — it's touted as everything from a health drink to a skin treatment — are overblown. Still, studies have shown water exposed to a charge works as a cleaner.

"We use it everywhere," said Mary Ann Flynn, appearance manager for the Culinary Institute of America in Hyde Park, N.Y. The school uses EO water. "They fill mop buckets with it. They fill bottles so that the students and the chefs use it in the kitchen."

The electrolyzed water systems vary, but a common type creates separate streams of disinfectant and cleaner by running a charge through water exposed to salt.

The disinfectant stream mainly contains hypochlorous acid, a form of chlorine. Viking Pure, one of several makers active in the United States, claims its sanitizing solution is effective against a long list of pathogens ranging from listeria to swine flu virus. A big selling point of the machines it sells is that users make the cleaner on the spot so they don't have to transport chemicals. Vi-

king Pure's president, Walter Warning, said the "acid water" is so gentle you can spray it on your skin.

The same salt-and-electricity process also creates a separate stream of sodium hydroxide, a common ingredient in cleaners. This "alkaline" stream can be used as a general purpose cleaner and degreaser.

Deborah Stone, housekeeping manager for Carolina Designs rental agency at North Carolina's Outer Banks, swears by it and said some of the biggest problems are

convincing workers they can clean without suds.

"It's very difficult for the cleaners to comprehend that because there is no smell and because there are no bubbles, they don't get the sense that they're actually cleaning," Stone said. "You still have those die-hard people that want the suds and the pretty smell."

Academic researchers have found that electrolyzed systems can be effective cleaners and disinfectants when the process is done correctly.



This photo shows Robert Fente, demo specialist at the Whole Foods Market in New York's Tribeca neighborhood, as he cleans the glass case of the prepared foods department with an ionized water sprayer. AP